SOUTHERN PACIFIC COMPANY

PACIFIC LINES

TIME TABLE

FOR THE

TUCSON DIVISION

109

To Take Effect Sunday, February 13, 1938, at 12:01 A. M.

MOUNTAIN STANDARD TIME (105th MERIDIAN)

For the government and information of employes only.

A. T. MERCIER,
General Manager.

W. B. KIRKLAND,
Superintendent of Transportation.

L. U. MORRIS,
Assistant General Manager.

WM. WILSON,
Superintendent.

WELLTON SUBDIVISION

	EASTWARD										Time Table No. 109 February 13, 1938			WESTWARD					
Capacity of sidings in car lengths	SECOND CLASS				FIRST CLASS				Distance from San Francisco				Distance from Phoenix Yard	FIRST CLASS				SECOND CLASS	THIRD CLASS
	846	902	844	842	2	6	4	44						1	3	43	5	841	901
	Freight	Freight	Freight	Freight	Sunset Limited	Argonaut	Golden State Limited	Californian						Sunset Limited	Golden State Limited	Californian	Argonaut	Freight	Freight
	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily			STATIONS			Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily
Yard BKWOTYP	4.50PM	1.25PM	9.10AM	1.05AM	6.15PM	4.20AM	4.10AM	4.00AM	732.7	A. B. S.	TO-R YUMA 4.8	D.T.	174.3	s 10.40AM	s 2.15PM	s 12.35AM	s 1.05AM	1.30AM	11.45PM
258 P	5.05	1.40	9.25	1.20	6.25	4.30	4.20	4.10	737.5		EAST YARD 2.6		169.5	10.30	2.05	12.25	12.55	1.17	11.32
67 P	5.10	1.45	9.30	1.25	6.28	4.34	4.23	4.13	740.1		ARABY 3.6		166.9	10.25	2.01	f 12.20	12.50	1.12	11.27
72 P	5.16	**1.56**	9.36	1.31	6.32	4.38	4.27	4.17	743.7		FORTUNA 2.9		163.3	10.20	**1.56**	12.15	12.45	1.06	11.21
67 P	5.21	2.01	9.41	1.36	6.35	4.41	4.30	4.20	746.6		BLAISDELL 6.9		160.4	10.15	1.51	12.10AM	12.40	1.01	11.16
93 Center P	5.36	2.16	9.56	1.51	f 6.47	f 4.53	4.42	4.32	753.5		DOME 1.7	D.T.	153.5	10.03	1.39	f 11.58PM	12.28	12.48	11.03
84 Spur P									755.2		GRANITE SPUR 5.0		151.8						
70 Center P	5.50	2.30	10.10	2.05	6.57	5.03	4.52	4.42	760.2		LIGURTA 9.8		146.8	9.53	1.29	11.48	12.18	12.36	10.51
72 WIP	6.15PM	2.55	10.35AM	2.30AM	f 7.09	f 5.15AM	5.04	4.53	770.0		TO WELLTON 5.7		137.0	9.40	1.18	11.35PM	f 12.05AM	12.20AM	10.35
78 P		3.07			7.18		5.13	5.01	775.7		MING 2.0		131.3	9.30	1.09		11.55PM		10.15
									777.7		YANO 3.2		129.8						
79 P		3.17			7.25		5.20	5.07	780.9		ROLL 7.4		126.1	9.24	1.03		f 11.49		10.05
34 Spur P									788.3		TYSON 4.9		118.7						
79 P		3.37			7.38		5.33	5.20	793.2		GROWLER 9.3		113.8	9.11	12.50		11.35		9.45
81 P		3.55			7.48		5.43	5.30	802.5		KOFA 10.2		104.5	9.01	12.40		11.24		9.31
79 P		4.15			7.59		5.54	5.41	812.7		HORN 9.6		94.3	8.49	f 12.29		11.13		9.15
80 WOP		4.40			f 8.10		6.07	5.54	822.3		TO HYDER 8.8		84.7	8.37	f 12.19		f 11.02		9.00
78 P		5.00			8.21		6.19	6.05	831.1		MONTEZUMA 5.7		75.9	8.23	12.08		10.49		8.40
78 P		5.10			**8.27**		6.25	6.11	836.8		PAPAGO 4.3		70.2	8.16	12.02PM		10.43		**8.27**
81 P		5.20			8.32		6.30	6.16	841.1		SADDLE 8.3		65.9	8.10	11.57AM		10.38		8.00
79 P		6.10			8.46		6.44	6.29	849.4		HARQUA 1.6		57.6	7.58	11.47		10.27		7.40
78 P		6.15			8.48		6.46	6.31	851.0		GILLESPIE 5.0		56.0	7.55	11.45		10.25		7.30
42 Spur P									856.0		CRAG 5.3		51.0						
81 P		6.35			8.59		6.57	6.42	861.3		ARLINGTON 4.4		45.7	7.43	11.34		10.14		7.15
78 P		**6.50**			9.04		7.02	6.47	865.7		DIXIE 1.9		41.3	7.37	11.29		f 10.08		**6.50**
12 Spur P									867.6		HASSAYAMPA 2.6		39.4						
6 Spur									870.2		PALO VERDE 1.3		36.8						
78 P		7.00			9.10		7.08	6.53	871.5		CONGER 4.2		35.5	7.30	11.23		10.02		6.38
81 WP		7.10			f 9.16		**7.18**	7.01	875.7		TO BUCKEYE 6.0		31.3	**7.18**	f 11.15		s 9.55		6.30
78 P		7.22			9.22		7.25	**7.08**	881.7		LIBERTY 3.2		25.3	**7.08**	11.07		9.42		6.18
P									884.9		NORTON 4.8		22.1						
79 YP		7.34			f **9.31**		7.34	7.17	889.7		LITCHFIELD 3.3		17.3	6.58	f 10.58		f **9.31**		6.05
97 P		7.40			9.36		7.38	7.21	893.0		CASHION 1.9		14.0	6.54	10.54		f 9.24		5.59
53 P		7.44			9.40		7.41	7.24	894.9		COWDEN 0.8		12.1	6.51	10.51		9.21		5.55
8 Spur									895.7		TOLLESON 0.6		11.3				f		
65 P									896.3		JEAN 1.8		10.7						
77 P		7.52			9.47		7.46	7.29	898.1		FOWLER 3.9		8.9	6.46	10.46		9.16		5.48
57 P		8.00			9.53		7.50	7.33	902.0		CAMPO 2.0		5.0	6.42	10.42		9.12		5.40
80		8.05			9.57		7.54	7.37	904.0		23rd AVE PHOENIX 1.5		3.0	6.38	10.38		9.08		5.35
									905.5		CROSSING—AT&SF WYE 0.5		1.5						
Yard BKWP					s 10.05PM		s 8.00AM	s 7.45AM	906.0		R PHOENIX 1.0	D.T.	1.0	6.30AM	10.30AM		9.00PM		
Yard BKWOTYP		8.20PM							907.0		TO-R PHOENIX YARD		0.0						5.20PM
	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily			(174.3)			Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily
	(1.25) 26.33	(6.55) 25.20	(1.25) 26.33	(1.25) 26.33	(3.50) 45.21	(0.55) 40.69	(3.50) 45.21	(3.45) 46.21			.... Time over district......... .... Average speed per hour.......			(4.10) 41.59	(3.45) 46.21	(1.00) 37.30	(4.05) 42.44	(1.10) 31.97	(6.25) 27.16

ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE PASSENGERS

Train	At	Receive or Discharge	To (or beyond)	From (or beyond)
44-4	Any Station	Discharge		Yuma
44-4	Wellton, Hyder, Buckeye, Litchfield	Receive	Phoenix	

ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE PASSENGERS

Train	At	Receive or Discharge	To (or beyond)	From (or beyond)
1	Any Station	Discharge		East of El Paso
3	Blaisdell	Receive	Scheduled to Stop	
3	Wellton	Discharge		Phoenix
5	Any Station	Discharge		Phx. Line St'ns & El Paso

PICACHO SUBDIVISION

EASTWARD																WESTWARD						
Capacity of sidings in car lengths	SECOND CLASS				FIRST CLASS					Distance from San Francisco			Time Table No. 109 February 13, 1938		Distance from Tucson	FIRST CLASS					SECOND CLASS	THIRD CLASS
	904	856	854	852	2	376	4	44	6							1	3	377	5	43	843	903
	Freight	Freight	Freight	Freight	Sunset Limited	Motor	Golden State Limited	Californian	Argonaut							Sunset Limited	Golden State Limited	Motor	Argonaut	Californian	Freight	Freight
	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily Ex. Sunday	Leave Daily	Leave Daily	Leave Daily				STATIONS			Arrive Daily	Arrive Daily	Arrive Daily Ex. Sunday	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily
Yard BKWP					10.20PM	8.45AM	8.15AM	8.00AM		906.0		R	PHOENIX 1.0		121.0	s 6.15AM	s 10.15AM	s 4.35PM	s 8.45PM			
Yard BKWOTYP	9.30PM				10.24	8.51	8.19	8.04		907.0		TO-R	PHOENIX YARD 4.1	D.T.	120.0	6.09	10.09	4.29	8.39			11.55PM
19 Spur P	9.42				10.32	8.59	8.27	8.12		911.1			KENDALL 0.7		115.9	6.01	10.01	4.21	8.31			11.40
11 Spur P						f				911.8			TOVREA 2.6		115.2			f				
87 YP	9.52				f 10.38	s 9.05	f 8.33	8.18		914.4		TO	TEMPE 0.9		112.6	5.55	f 9.55	s 4.15	s 8.25			11.25
P	9.57				10.41	9.09	8.36	8.21		915.3			TEMPE JCT. 1.8		111.7	5.52	9.51	4.11	8.20			11.15
35 P	10.02				10.44	9.12	8.39	8.24		917.1			NORMAL JCT. 1.3		109.9	5.49	9.48	4.08	8.17			11.10
										918.4			FRANKENBURG 0.2		108.6							
36 Spur										918.6			TEMPE PUMPING PLANT 3.2		108.4							
Yard KWYP	**10.26**				s **10.54**	s 9.22	f 8.49	8.33		921.8		TO	MESA 1.8		105.2	5.41	f 9.40	s 4.00	s 8.09			10.54 10.26
79 P	10.32				10.57	9.25AM	8.52	8.36		923.6			McQUEEN 1.8		103.4	5.38	9.33	3.55PM	8.04			9.45
22 P										925.4			TREMAINE 0.7		101.6							
40 P	10.37				11.01		8.56	8.40		926.1			FALFA 3.2		100.9	5.34	9.28		8.00			9.30
76 P	10.46				f 11.09		f 9.04	8.46		929.3		TO	CHANDLER 1.7		97.7	5.29	f 9.23		f 7.55			9.20
35 Spur P	10.50				11.12		9.07	8.49		931.0			POZO 3.3		96.0	5.26	9.18		7.49			8.55
81 P	10.55				11.16		**9.11**	8.53		934.3			SERAPE 4.7		92.7	5.22	**9.11**		7.45			8.45
71 P	11.03				11.21		9.16	**8.58**		939.0			SANTAN 4.2		88.0	5.17	**8.58**		7.40			8.35
72 P	11.10				11.26		9.21	9.03		943.2			DOCK 4.9		83.8	5.12	8.48		7.35			8.25
34 P	11.19				11.32		9.27	9.08		948.1			OLBERG 5.1		78.9	5.07	8.43		7.29			8.15
79 P	11.27				11.38		9.33	9.14		953.2			BLACKWATER 5.0		73.8	5.01	8.37		7.23			8.00
81 YP	11.35				11.44		9.39	9.20		958.2			POSTON 3.8		68.8	4.55	8.31		7.17			7.45
80 WP	**11.52**PM				f **11.52**		f 9.47	9.27		962.0	A. B. S.	TO	COOLIDGE 4.4		65.0	4.51	f 8.26		f 7.12			7.30
34 P	12.02AM				11.57PM		9.52	9.32		966.4			RANDOLPH 5.0		60.6	4.45	8.20		f **7.05**			**7.05**
72 P	12.10				12.02AM		9.57	9.37		971.4			TOPAZ 4.0		55.6	4.40	8.15		7.00			6.50
4 Spur P										975.4			PEAK 5.2		51.6							
102 WOYP	12.25	**7.05**PM	10.55AM	3.35AM	12.12		10.07	9.47	9.30AM	980.6 937.5		TO	PICACHO 3.2		46.4	4.29	8.04		6.49	f **7.05**PM	4.30PM	6.30
73 P	12.32	7.15	11.05	3.45	12.17		10.12	9.52	9.36	940.7			OCATILLA 3.5		43.2	4.24	7.59		6.44	7.00	4.23	6.20
94 P	12.39	7.24	11.14	3.54	12.21		10.16	9.56	9.41	944.2			WYMOLA 3.7		39.7	4.20	7.55		6.40	6.55	4.17	6.10
73 P	12.46	7.32	11.22	4.02	12.25		10.20	10.00	9.46	947.9			MONTROSE 3.5		36.0	4.16	7.51		6.36	6.50	4.11	6.02
69 WP	12.53	7.41	11.31	**4.12**	12.29		10.24	10.04	f 9.52	951.4		TO	RED ROCK 2.9		32.5	**4.12**	7.47		6.32	f 6.45	4.05	5.52
72 P	12.58	7.46	11.36	4.17	12.32		10.27	10.07	9.55	954.3			AVRA 4.1		29.6	4.09	7.44		6.29	6.40	4.00	5.40
67 P	1.05	7.53	11.43	4.24	12.37		10.32	10.12	10.00	958.4			NAVISKA 3.8		25.5	4.04	7.39		6.24	6.35	3.53	5.30
71 P	1.11	7.59	11.49	4.30	12.41		10.36	10.16	f 10.05	962.2			MARANA 2.4		21.7	4.00	7.35		6.20	f 6.31	3.47	5.21
100 P	1.16	8.04	11.54	4.35	12.44		10.39	10.19	10.08	964.6			ROSKRUGE 2.3		19.3	3.57	7.32		6.17	6.27	3.43	5.16
165 WP	1.21	8.09	11.59AM	4.40	12.47		10.42	10.22	f 10.12	966.9			RILLITO 3.0		17.0	3.54	7.29		6.14	f 6.24	3.39	5.09
100 P	1.27	8.15	12.05PM	4.46	12.50		10.45	10.25	10.17	969.9			SABINO 2.2		14.0	3.51	7.26		6.11	6.18	3.34	5.00
67 P	1.32	8.20	12.10	4.51	12.53		10.48	10.28	f 10.21	972.1			CORTARO 2.6		11.8	3.48	7.23		6.08	f 6.15	3.30	4.52
100 P	1.37	8.25	12.15	4.56	12.56		10.51	10.31	10.24	974.7			KINO 2.7		9.2	3.45	7.20		6.05	6.11	3.26	4.45
67 P	1.42	8.30	12.20	5.01	12.59		10.54	10.34	f 10.28	977.4			JAYNES 3.8		6.5	3.42	7.17		6.02	f 6.08	3.21	4.38
P	1.48	8.36	12.26	5.07	1.03		10.58	10.38	10.32	981.2			STOCKHAM 1.6		2.7	3.38	7.13		5.58	6.03	3.14	4.30
P										982.8			SOUTH LINE JCT. 1.1	D.T.	1.1							
Yard BKWFITYP	2.00AM	8.50PM	12.40PM	5.20AM	s 1.10AM		s 11.05AM	s 10.45AM	s 10.40AM	983.9		TO-R	TUCSON		0.0	3.30AM	7.05AM		5.50PM	5.55PM	3.05PM	4.20PM
	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily Ex. Sunday	Arrive Daily	Arrive Daily	Arrive Daily				(121.0)			Leave Daily	Leave Daily	Leave Daily Ex. Sunday	Leave Daily	Leave Daily	Leave Daily	Leave Daily
	(4.30) 26.67	(1.45) 26.51	(1.45) 26.51	(1.45) 26.51	(2.50) 42.71	(0.40) 26.40	(2.50) 42.71	(2.45) 44.00	(1.10) 39.77				……… Time over district ……… ……… Average speed per hour ……			(2.45) 44.00	(3.10) 38.21	(0.40) 26.40	(2.55) 41.49	(1.10) 39.77	(1.25) 32.75	(7.35) 15.82

At Picacho schedule time and train orders apply at junction switch.

ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE PASSENGERS

Train	At	Receive or Discharge	To (or beyond)	From (or beyond)
44	Any Station	Discharge		Yuma
44	Tempe, Mesa	Receive	East of El Paso	
	Chandler. Coolidge	Discharge		Redlands
4	Any Station	Discharge		Phoenix Line Stations (only)

ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE PASSENGERS

Train	At	Receive or Discharge	To (or beyond)	From (or beyond)
1	Any Station	Discharge		East of El Paso
1	Coolidge, Chandler	Discharge (revenue)		Tucson
	Mesa, Tempe	Receive (revenue)	Yuma	
3	Any Station Tucson to Picacho inc.	Receive	Phoenix Line Stations (only)	
5	Any Station	Receive Discharge	Phoenix Line Stations (only)	El Paso

WELLTON SUBDIVISION

Capacity of sidings in car lengths	EASTWARD SECOND CLASS 846 Freight	844 Freight	842 Freight	FIRST CLASS 6 Argonaut	Distance from San Francisco		Time Table No. 109 February 13, 1938		Distance from Gila	WESTWARD FIRST CLASS 43 Californian	SECOND CLASS 841 Freight
	Leave Daily	Leave Daily	Leave Daily	Leave Daily			STATIONS			Arrive Daily	Arrive Daily
72 WIP	6.15 PM	10.35 AM	2.30 AM	5.15 AM	770.0	TO	WELLTON	D.T.	85.7	s 11.35 PM	12.20 AM
							3.1				
73 P	6.25	10.45	2.40	5.21	773.1		ASHER		82.6	11.27	12.14
							3.3				
67 P	6.32	10.52	2.47	f 5.26	776.4		TACNA		79.3	f 11.21	12.08
							3.7				
73 P	6.39	10.59	2.54	5.30	780.1		GAEL		75.6	11.15	12.02 AM
							3.7				
67 P	6.46	11.06	3.01	5.35	783.8		COLFRED		71.9	11.09	11.56 PM
							4.8				
69 P	6.55	11.15	3.10	5.41	788.6		PEMBROKE		67.1	11.02	11.48
							4.0				
W88 E70 P	7.10	11.30	3.25	f 5.48	792.6	TO	MOHAWK		63.1	f 10.56	11.41
							3.3				
67 P	7.20	11.40	3.35	5.53	795.9		KIM		59.8	10.48	11.29
							4.6				
67 P	7.28	11.48	3.43	5.59	800.5		STOVAL		55.2	10.41	11.22
							5.7				
92 P	7.38	11.58 AM	3.53	f 6.06	806.2		MUSINA		49.5	f 10.34	11.13
							5.7				
67 WP	7.48	12.08 PM	4.03	f 6.22	811.9	A.B.S.	AZTEC		43.8	f 10.26	11.03
							3.9				
100 P	7.55	12.15	4.10	6.27	815.8		MUGGINS		39.9	10.15	10.47
							3.9				
67 P	8.01	12.21	4.16	6.31	819.7		STANWIX		36.0	10.11	10.41
							2.3				
72 P	8.05	12.25	4.20	6.34	822.0		LAVA		33.7	10.08	10.37
							4.1				
W70 E82 WOP	8.30	12.50	4.45	f 6.41	826.1	TO	SENTINEL		29.6	s 10.02	10.30
							3.5				
76 P	8.41	1.01	4.56	6.46	829.6		TRIGO		26.1	9.55	10.24
							3.5				
67 P	8.49	1.09	5.04	6.50	833.1		TARTRON		22.6	9.51	10.18
							6.8				
67 P	9.01	1.21	5.16	f 6.58	839.9		PIEDRA		15.8	f 9.43	10.07
							5.6				
68 P	9.11	1.31	5.26	f 7.05	845.5		THEBA		10.2	f 9.35	9.58
							4.8				
67 P	**9.29**	1.40	5.35	7.11	850.3		SMURR		5.4	**9.29**	9.50
							5.4				
Yard BKWOTP	**9.40** PM	1.50 PM	5.45 AM	s 7.20 AM	855.7	TO-R	GILA		0.0	9.20 PM	**9.40** PM
							(85.7)				
	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily						Leave Daily	Leave Daily
	(3.25) 25.08	(3.15) 26.37	(3.15) 26.37	(2.05) 41.14			........Time over district........ ....Average speed per hour........			(2.15) 38.09	(2.40) 32.14

EASTWARD WELLTON SUBDIVISION WESTWARD

Capacity of sidings in car lengths	Distance from San Francisco	Time Table No. 109 February 13, 1938 Litchfield Branch STATIONS	Distance from Litchfield Park
79 YP	889.7	LITCHFIELD	5.0
		5.0	
34 22 Spurs	894.7	LITCHFIELD PARK	0.0
		(5.0)	

At Sentinel schedule time and train orders, except for westward first class trains, apply at east switch of west siding.

First class trains meeting at Gila take siding at passenger station.

EASTWARD PICACHO SUBDIVISION WESTWARD

Capacity of sidings in car length	Distance from San Francisco	Time Table No. 109 February 13, 1938 Tempe Branch STATIONS	Distance from West Chandler
P	915.3	TEMPE JCT.	7.7
		2.4	
21	917.7	PETERSON	5.3
		2.4	
53	920.1	HELENA	2.9
		2.9	
21 Spur	923.0	WEST CHANDLER	0.0
		(7.7)	

PICACHO SUBDIVISION

EASTWARD / WESTWARD

Time Table No. 109
February 13, 1938

Capacity of sidings in car lengths	SECOND CLASS 856 Freight Leave Daily	SECOND CLASS 854 Freight Leave Daily	SECOND CLASS 852 Freight Leave Daily	FIRST CLASS 6 Argonaut Leave Daily	Distance from San Francisco		STATIONS		Distance from Picacho	FIRST CLASS 43 Californian Arrive Daily	SECOND CLASS 843 Freight Arrive Daily
Yard BKWOTP	3.40 PM	7.40 AM	12.20 AM	7.25 AM	855.7	TO-R	GILA	3.4	81.8	s 9.10 PM	7.20 PM
67 P	3.49	7.49	12.29	7.32	859.1		COLEDON	6.0	78.4	9.03	7.08
77 P	4.05	8.05	12.45	f 7.42	865.1		BOSQUE	4.0	72.4	f 8.55	6.58
67 P	4.17	8.17	12.57	7.49	869.1		OCAPOS	2.7	68.4	8.49	6.46
76 P	4.27	8.27	1.07	7.54	871.8		SHAWMUT	2.8	65.7	8.45	6.41
73 YP	4.40	8.40	1.20	f 8.00	874.6	TO	ESTRELLA	4.8	62.9	f 8.41	6.36
68 P	4.48	8.48	1.28	8.05	879.4		BUCHAN	4.3	58.1	8.34	6.26
67 P	4.55	8.55	1.35	f 8.11	883.7		MOBILE	4.7	53.8	f 8.28	6.17
67 P	5.08	9.08	1.48	8.16	888.4		ENID	4.4	49.1	8.21	6.07
67 P	5.15	9.15	1.55	8.21	892.8	A. B. S.	HEATON	5.0	44.7	8.15	5.57
150 WP	**5.48**	9.40	2.20	f 8.32	897.8	TO	MARICOPA	5.1	39.7	s 8.08	**5.48**
67 P	6.00	9.50	2.30	8.39	902.9		LIRIM	4.8	34.6	7.54	5.30
72 P	6.10	10.00	2.40	f 8.45	907.7		BON	4.8	29.8	f 7.49	5.20
67 P	6.20	10.10	2.50	8.51	912.5		NUNEZ	6.3	25.0	7.43	5.12
94 WP	6.32	10.22	3.02	s 9.04	918.8	TO	CASA GRANDE	2.2	18.7	s 7.35	5.01
17 Spur					921.0		SECO	2.7	16.5		
67 P	6.40	10.31	3.11	9.10	923.7		ARIZOLA	4.7	13.8	7.25	4.53
68 P	6.48	10.40	3.20	f 9.16	928.4		TOLTEC	4.7	9.1	f 7.19	4.45
77 P	6.56	10.48	3.28	f 9.23	933.1		ELOY	4.4	4.4	f 7.12	4.37
102 WOYP	**7.05 PM**	10.55 AM	3.35 AM	f 9.30 AM	937.5	TO	PICACHO		0.0	**7.05 PM**	4.30 PM
	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily			81.8			Leave Daily	Leave Daily
	(3.25) 23.94	(3.15) 25.17	(3.15) 25.17	(2.05) 39.26			……Time over district…… ……Average speed per hour……			(2.05) 39.26	(2.50) 28.87

EASTWARD PICACHO SUBDIVISION WESTWARD

Time Table No. 109
February 13, 1938
Creamery Branch

Capacity of sidings in car lengths	Distance from San Francisco		STATIONS		Distance from Normal Jct.
87 YP	914.4	TO	TEMPE	1.0	2.1
130 Spur	915.4		CREAMERY	1.1	1.1
8 Spur	916.5		NORMAL JCT.		0.0
			(2.1)		

EASTWARD PICACHO SUBDIVISION WESTWARD

Time Table No. 109
February 13, 1938
Florence Branch

Capacity of sidings in car lengths	Distance from San Francisco	STATIONS		Distance from Florence Jct.
81 YP	958.2	POSTON	3.8	6.5
3 Spur	962.0	PARSONS	2.7	2.7
P	964.7	FLORENCE JCT.		0.0
		(6.5)		

PICACHO SUBDIVISION

EASTWARD / WESTWARD

Time Table No. 109
February 13, 1938
Christmas Branch

Capacity of sidings in car lengths	FIRST CLASS 376 Motor Leave Daily Ex. Sunday	Distance from San Francisco		STATIONS		Distance from Christmas	FIRST CLASS 377 Motor Arrive Daily Ex. Sunday
79 P	9.25 AM	923.6		McQUEEN	3.4	86.9	3.55 PM
46 P	s 9.35	927.0	TO	GILBERT	5.0	83.5	s 3.47
27	f 9.45	932.0		HIGLEY	3.6	78.5	f 3.38
10	f	935.6		GERMANN	2.5	74.9	f
15 P	f	938.1		RITTENHOUSE	3.5	72.4	f
55 P	f 10.04	941.6		QUEEN CREEK	8.2	68.9	f 3.21
45 P	f 10.21	949.8		MAGMA	6.7	60.7	f 3.07
P	10.34	956.5		FLORENCE JOT.	2.5	54.0	2.53
28 WP	s 10.45	959.0	TO	FLORENCE	2.8	51.5	s 2.48
		961.8		BARR	4.9	48.7	
		966.7		MUNN	1.6	43.8	
		968.8		DIVERSION	0.7	42.2	
27 P	f 11.05	969.0		PRICE	6.2	41.5	f 2.27
27 P	f 11.20	975.2		COCHRAN	4.5	35.3	f 2.12
	f	979.7		BUTTES	3.4	30.8	f
26 P	11.40	983.1		ZELLWEGER	1.5	27.4	1.52
2 Spur	11.44	984.6		WOOLEY	3.2	25.9	1.48
Yard P	s 11.56 AM	987.8	TO-R	RAY JUNCTION	1.2	22.7	s 1.40
		989.0		ERMAN	5.9	21.5	
32	f 12.13 PM	994.9		BRANAMAN	4.3	15.6	f 1.23
Y		999.2		BURNS WYE	0.5	11.3	
36	12.24	999.7		BURNS	0.5	10.8	1.12
Yard WOP	s 12.29	1000.2	TO-R	HAYDEN JCT.	1.9	10.3	s 1.10
17 KP	s 12.40	1002.1	TO	HAYDEN	1.4	8.4	s 1.05
15	s 12.45 PM	1003.5		WINKELMAN	1.2	7.0	1.00 PM
		1004.7		ROCK QUARRY	2.3	5.8	
		1007.0		FINNEY	2.4	3.5	
		1009.4		RUDO	1.1	1.1	
43		1010.5		CHRISTMAS		0.0	
	Arrive Daily Ex. Sunday			(86.9)			Leave Daily Ex. Sunday
	(3.20) 23.97			……Time over district…… ……Average speed per hour……			(2.55) 27.39

Rule S-72 Exception, No. 376 is superior to No. 377

First class trains meeting at Gila take siding at passenger station.
At Picacho schedule time and train orders apply at junction switch.

Signal at Hayden Junction, governing movement of trains between Christmas Branch switch (1584 feet east of Hayden Junction) and Hayden Junction train-order office. Engineer will call for this signal by one long, one short and one long sounds and will not proceed until signal has been placed in proceed position. Normal position Christmas Branch switch for R. & G. V. Railroad.

Westward trains Hayden to Hayden Junction on Christmas Branch and R. & G. V. Railroad, must stop, before fouling adjacent track.

EASTWARD PICACHO SUBDIVISION WESTWARD

Capacity of Sidings in Car Lengths	SECOND CLASS 870 Freight Leave Daily Ex. Sunday	FIRST CLASS	FIRST CLASS 378 Mexican Express Leave Daily Ex. Sunday	Distance from San Francisco		Time Table No. 109 February 13, 1938 Nogales Branch STATIONS	Distance from Nogales	FIRST CLASS 379 Mexican Express Arrive Daily Ex. Sunday	FIRST CLASS	THIRD CLASS 871 Freight Arrive Daily Ex. Sunday
Yard BKWFTYP	6.00AM		11.25AM	983.9	TO-R	TUCSON 0.8	65.9	s 4.20PM		3.15PM
				984.7		T. & N. R. R. JCT. 2.2	65.1			
P	6.15		11.37	986.9		SOUTH LINE CROSSING 3.0	62.9	4.07		3.00
60 P	6.25		f 11.43	989.9		AGUIRRE 3.9	59.9	f 4.01		2.50
60 P	6.35		11.49	993.8		XAVIER 4.8	56.0	3.55		2.40
60 P	6.45		11.57AM	998.6		FELIX 3.8	51.2	3.47		2.30
120 P	7.00		f 12.04PM	1002.4		SAHUARITA 8.0	47.4	f 3.40		2.20
13 P	7.20		f 12.18	1010.4		CONTINENTAL 1.7	39.4	f 3.26		2.00
63 P	7.27		12.21	1012.1		MORALES 4.2	37.7	3.23		1.55
62 P	7.40		f 12.28	1016.3		CANOA 4.8	33.5	f 3.16		1.45
62 P	7.55		s 12.38	1021.1	TO	AMADO 4.5	28.7	s 3.07		1.35
61 P	8.05		f 12.46	1025.6		CHAVEZ 2.5	24.2	f 2.59		1.20
			f	1028.1		SOTOS CROSSING 1.5	21.7	f		
61 P	8.20		f 12.53	1029.6		TUBAC 4.6	20.2	f 2.52		1.12
62 P	8.30		f **1.01**	1034.2		OTERO 3.2	15.6	f 2.44		**1.01**
62 P	8.40		f 1.06	1037.4		SILVA 2.7	12.4	f 2.39		12.46
95 Spur P	8.50		f 1.11	1040.1		CALABASAS 9.7	9.7	f 2.34		12.40
Yard BKWFTP	9.30AM		s 1.35PM	1049.8	TO-R	NOGALES	0.0	2.10PM		12.15PM
	Arrive Daily Ex. Sunday		Arrive Daily Ex. Sunday			(65.9)		Leave Daily Ex. Sunday		Leave Daily Ex. Sunday
	(3.30) 18.83		(2.10) 30.42			Time over district Average speed per hour		(2.10) 30.42		(3.00) 21.97

Rule S-72 Exception, No. 378 is superior to No. 379.

EASTWARD BOWIE SUBDIVISION WESTWARD

Capacity of Sidings in Car Lengths	SECOND CLASS 884 Local Freight Leave Daily Ex. Sunday	FIRST CLASS	FIRST CLASS 382 Motor Leave Daily	Distance from San Francisco		Time Table No. 109 February 13, 1938 Globe Branch STATIONS	Distance from Live Oak	FIRST CLASS 381 Motor Arrive Daily	FIRST CLASS	SECOND CLASS 883 Local Freight Arrive Daily Ex. Saturday
Yard BKWYFP	8.00AM		3.05PM	1098.4	TO-R	BOWIE 9.5	136.4	s 1.00PM		4.55PM
56 P	8.25		3.22	1107.4		ESCALA 5.1	126.9	12.36		4.33
P				1112.5		ARKILL 5.3	121.8			
44 P	8.50		f 3.38	1117.8		TANQUE 7.3	116.5	f 12.17		4.10
50 P	9.05		**3.49**	1125.1		HAECKEL 7.5	109.2	12.04PM		**3.49**
55 P	9.25		s 4.02	1132.6	TO	SOLOMON 2.7	101.7	s 11.52AM		3.10
20				1135.3		LONE STAR 2.2	99.0			
Yard WP	10.20		s 4.15	1137.5	TO	SAFFORD 3.1	96.8	s 11.40		2.40
34 P	10.35		s 4.25	1140.6	TO	THATCHER 2.5	93.7	s 11.28		1.15
5			f	1143.1		CENTRAL 2.5	91.2	f		
27 YP	10.55		s 4.36	1145.6	TO	PIMA 1.1	88.7	s 11.18		1.00
66 P	**11.14**		4.40	1146.7		DUBLIN 2.2	87.6	**11.14**		12.50
4			f	1148.9		GLENBAR 4.1	85.4	f		
60 P	11.45AM		f 4.51	1153.0		CORK 1.8	81.3	f 11.04		12.30
2 Spur			f	1154.8		ASHURST 4.5	79.5	f		
61 P	**12.10**PM		s 5.04	1159.3	TO	FT. THOMAS 4.9	75.0	s 10.53		**12.10**PM
56 CWP	12.25		f 5.13	1164.2		GERONIMO 5.9	70.1	f 10.43		11.50AM
58 P	12.40		f 5.24	1170.1		BYLAS 6.7	64.2	f 10.31		11.35
54 P	12.57		f 5.36	1176.8		CALVA 6.9	57.5	f 10.19		11.20
58 P	1.15		5.48	1183.7		NACHES 7.3	50.6	10.07		11.05
55 P	1.40		6.04	1191.0		DILI 6.3	43.3	9.51		10.40
P			f	1197.2		PERIDOT 3.8	37.0	f		
57 WP	2.05		s 6.24	1201.0	TO	SAN CARLOS 6.8	33.2	s 9.34		10.15
21 P	2.25		6.39	1207.8		REPPY 5.7	26.4	9.21		9.55
43 P	2.45		f 6.51	1213.5		CUTTER 5.8	20.7	f 9.11		9.40
21 P	3.05		7.08	1219.3		PINAL 2.2	14.9	8.59		9.23
Yard BKWFTP	3.20PM		s 7.15PM	1221.5	TO-R	GLOBE 2.5	12.7	8.50AM		9.10AM
5				1224.0		HAMM 1.3	10.2			
				1225.3		KINGDON 0.9	8.9			
13 P				1226.2		RADIUM 1.1	8.0			
3 Spur				1227.3		BURCH 2.0	6.9			
P				1229.3		KISER 0.9	4.9			
16				1230.2		CLAYPOOL 1.7	4.0			
Yard WYP				1231.9	TO-R	MIAMI 1.1	2.3			
				1233.0		INSPIRATION JCT. 1.2	1.2			
				1234.2		LIVE OAK	0.0			
	Arrive Daily Ex. Sunday		Arrive Daily			(136.4)		Leave Daily		Leave Daily Ex. Saturday
	(7.20) 16.87		(4.10) 29.69			Time over district Average speed per hour		(4.10) 29.69		(7.45) 15.96

EASTWARD — BOWIE SUBDIVISION — WESTWARD

Time Table No. 109
February 13, 1938

Capacity of sidings in car lengths		SECOND CLASS					FIRST CLASS				Distance from San Francisco			STATIONS	Distance from Lordsburg	FIRST CLASS		SECOND CLASS
		866	964	864	962	862	4	6	44	2						43	1	845
		Freight	Freight	Freight	Freight	Freight	Golden State Limited	Argonaut	Californian	Sunset Limited						Californian	Sunset Limited	Freight
		Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily						Arrive Daily	Arrive Daily	Arrive Daily
Yard	BKWFTYP	5.45PM	4.25PM	9.40AM	7.00AM	1.45AM	11.20AM	11.07AM	11.00AM	1.30AM	983.9	TO-R		TUCSON		See Rio Grande Division Time Table.		
											984.7		0.8	T. N. R. R. JCT.				
2	Spur	5.58	4.38	9.53	7.13	1.58	11.29	11.17	11.09	1.40	987.4		2.7	POLVO				
66	P	6.05	4.46	10.00	7.21	2.05	11.34	11.22	11.14	1.45	990.7		3.3	WILMOT				
66	P	6.13	4.55	10.08	7.30	2.13	11.40	11.28	11.20	1.51	993.8		3.1	RANKIN				
67	P	6.23	5.07	10.18	7.42	2.23	11.48	f 11.36	11.28	1.59	998.6		4.8	ESMOND				
66	P	6.35	5.20	10.30	7.55	2.35	11.56AM	f 11.44	11.36	2.07	1003.3		4.7	VAIL				
66	P	6.47	5.33	10.42	8.08	2.47	12.06PM	11.54AM	11.46	2.17	1008.5		5.2	IRENE				
84	WP	6.57	5.56	10.52	8.31	2.57	12.13	f 12.02PM	11.53	2.24	1012.6		4.1	PANTANO				
66	P	7.06	6.06	11.01	8.41	3.06	12.19	12.08	11.59AM	2.30	1016.1		3.5	BUELL				
66	P	7.15	6.16	11.10	8.51	3.15	12.25	12.15	12.05PM	2.37	1019.7		3.6	AMOLE				
E 94 W81	CIYP	7.30	6.30PM	11.25	9.05AM	3.30	12.32PM	f 12.23	12.12PM	2.45	1023.6	TO-R	3.9	MESCAL	124.7	f 4.35PM	2.15AM	2.20PM
81	P	7.40		11.35		3.39		12.30		2.51	1028.2		4.6	CHAMISO	120.1	4.25	2.05	2.04
Yard	KWOYP	8.00		11.55AM		3.55		s 12.43		f 3.05	1032.6	TO	4.4	BENSON	115.7	s 4.14	f 1.54	1.45
66	P	8.12		12.07PM		4.02		12.50		3.12	1035.8		3.2	FENNER	112.5	4.03	1.44	1.39
87	P	8.23		12.18		4.12		12.57		3.18	1038.5		2.7	CURVO	109.8	3.57	1.38	1.32
78	WP	8.34		12.29		4.23		f 1.06		3.25	1041.0		2.5	SIBYL	107.3	f 3.51	1.32	1.24
66	P	8.43		12.38		4.32		**1.12**		3.31	1043.9		2.9	TULLY	104.4	3.47	1.28	**1.12**
66	P	8.52		12.47		4.40		1.19		3.37	1047.3		3.4	OCHOA	101.0	3.42	1.23	1.04
66	P	9.01		**12.56**		4.48		1.25		3.43	1050.8		3.5	LANOCHA	97.5	3.37	1.18	**12.56**
E 69 W68	YP	9.14		1.09		5.00		s 1.33		3.48	1053.9	TO	3.1	DRAGOON	94.4	s 3.33	1.14	12.47
86	P	9.24		1.19		5.08		1.39		3.54	1058.3		4.4	MANZORO	90.0	3.24	1.05	12.27
94	P	9.33		1.28		5.17		s 1.48		4.00	1063.9	TO	5.6	COCHISE	84.4	f 3.15	12.57	12.17
66	P	9.42		1.41		5.26		1.55		4.06	1069.6		5.7	HADO	78.7	3.07	12.49	12.08PM
70	WP	10.00		1.58		5.40		s 2.05		4.12	1074.7	TO	5.1	WILLCOX	73.6	s 3.00	12.43	11.59AM
64	P	10.12		**2.12**		5.50		**2.12**		4.18	1079.4		4.7	DRURY	68.9	2.50	12.36	11.45
105	P	10.23		2.25		5.59		f 2.18		4.23	1082.6		3.2	RASO	65.7	f 2.46	12.32	11.38
68	P	10.32		**2.38**		6.08		2.26		4.30	1087.7		5.1	ALRICH	60.6	**2.38**	12.24	11.23
66	P	10.38		2.45		6.14		**2.31**		4.35	1091.0		3.3	LUZENA	57.3	**2.31**	12.17	11.13
66	P	10.44		2.51		6.20		2.36		4.40	1094.5		3.5	CHOLLA	53.8	2.24	12.12	11.06
Yard	KWFYP	11.10		3.10		6.35		s 2.55		s 4.52	1098.4	TO-R	3.9	BOWIE	49.9	s 2.15	s 12.05AM	10.56
66	P	11.18		3.19		6.43		3.02		4.58	1102.6		4.2	HOLT	45.7	1.57	11.52PM	10.48
66	P	11.24		3.26		6.49		f 3.07		5.02	1106.6		4.0	OLGA	41.7	f 1.52	11.48	10.42
66	P	11.30		3.33		6.55		3.12		5.06	1110.2		3.6	KARRO	38.1	1.47	11.44	10.36
66	BKWFYP	**11.40**		3.40		7.01		s 3.19		5.10	1114.2	TO	4.0	SAN SIMON	34.1	s 1.42	**11.40**	10.29
66	P	11.54PM		3.54		7.13		3.24		5.14	1117.6		3.4	BAWTRY	30.7	1.37	11.36	10.18
77	P	12.06AM		4.06		7.23		3.33		5.21	1121.8		4.2	VANAR	26.5	1.33	11.31	10.11
74	P	12.15		4.15		7.30		3.41		5.27	1125.0		3.2	CAVOT	23.3	1.28	11.26	10.05
E 68 W74	YP	12.35		4.35		7.45		f 3.53		5.37	1128.9		3.9	STEINS	19.4	f 1.20	11.18	9.55
65	P	12.42		4.42		7.52		3.59		5.42	1132.7		3.8	MONDEL	15.6	1.14	11.12	9.41
65	P	12.49		4.49		7.59		4.04		5.47	1136.5		3.8	CONRAD	11.8	1.09	11.07	9.34
66	P	12.57		4.57		8.07		f 4.10		5.53	1140.8		4.3	GARY	7.5	f 1.03	11.01	9.26
66	P	1.04		5.04		8.13		4.15		5.57	1143.9		3.1	PYRA	4.4	12.59	10.57	9.20
Yard	BKWFTYP	1.15AM		5.15PM		8.25AM		s 4.23PM		s 6.05AM	1148.3	TO-R	4.4	LORDSBURG	0.0	12.52PM	10.50PM	9.10AM
		Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily					(164.4)	Leave Daily	Leave Daily	Leave Daily
		(7.30)	(2.05)	(7.35)	(2.05)	(6.40)	(1.12)	(5.16)	(1.12)	(4.35)				Time over District		(3.43)	(3.25)	(5.10)
		21.92	19.06	21.68	19.06	24.66	33.08	31.22	33.08	35.87				Average speed per hour		33.55	36.50	24.14

Track No. 2 (Tucson to Mescal)

A. B. S. (Mescal to Lordsburg)

Westward trains will use track No. 1, Rio Grande Division, Mescal to Tucson, and eastward trains will use track No. 2, Tucson Division, Tucson to Mescal, unless otherwise directed by train order.

ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE PASSENGERS

Train	At	Receive or Discharge	To (or beyond)	From (or beyond)
1	Any Station	Discharge		East of El Paso
2	Willcox	Discharge		Phoenix Line Stations

SPECIAL INSTRUCTIONS

RULE 2. Watch Inspectors:

S. A. Pope, Manager of Time Service	65 Market St., San Francisco
Yuma	Wm. Baird
Yuma	J. H. Huber
Phoenix	H. H. Howard
Winkelman	J. C. Williams
Tucson	Greenwald & Adams
Tucson	H. L. Tucker
Nogales	E. M. Mather
Lordsburg	H. H. Conder
Globe	J. G. Cubitto
Miami	J. G. Cubitto, Jr.

RULES 10 (G) and 10 (H). On tracks No. 1 and No. 2 between Tucson and Polvo, signals will be placed on left of track in direction of movement.

RULE 14. Other engine whistle signals:
For diverging route, one short, one long, one short.
For siding, one long, one short, one long.

RULE 14 (d). As specified below, four long, one short sounds of whistle will be indication that flagman may return from West as prescribed by Rule 99:

Trains on Second Main Track Phoenix Yard to Kendall.
Normal Jct., Trains on Creamery Branch.
Florence Jct., Trains on Florence Branch.
Picacho, Trains on Phoenix Line.
Trains leaving these junctions in opposite direction use 14 (e).

RULE 14 (e). As specified below, six long sounds of whistle will be indication that flagman may return from East as prescribed by Rule 99:
Wellton, Trains on Phoenix Line.
Litchfield, Trains on Litchfield Branch.
Trains on Second Main Track Kendall to Phoenix Yard.
Tempe, Trains on Creamery Branch.
Tempe Jct., Trains on Tempe Branch.
McQueen, Trains on Christmas Branch.
Poston, Trains on Florence Branch.
T. & N. R. R. Jct., Trains on Nogales Branch.
Mescal, Trains on Rio Grande Division.
Bowie, Trains on Globe Branch.
Trains leaving these junctions in opposite direction use 14 (d).

RULE 21 (C). Tucson, incoming engines may display indicators until arrival roundhouse.

RULE 28. In double track territory signals will be placed to right of track according to direction of movement of train to be flagged. Trains in opposite direction will not be required to observe signals so placed.

RULES 72 and 73. Second class and extra trains may run ahead of first class trains Phoenix to Phoenix Yard.

Third class and extra trains may run ahead of No. 377 from McQueen to Mesa, and from Tempe Jct. to Tempe.

RULE S-72. Westward trains are superior to trains of the same class in the opposite direction.

RULE 83. As it applies passing from double to single track, is modified. If identification of trains on double track is made between Yuma and East Yard, Dome and Wellton, Stockham and Tucson, and on double track or on second main track and main track Phoenix-Phoenix Yard-Kendall, it will not be necessary to obtain train order check of the same trains before passing from double track to single track. Trains moving in the opposite direction must reduce speed sufficient to permit identification and Rule 14 (K) must be applied when approaching trains on the opposite track.

RULE 83 (A). At the following stations, only the trains indicated will register.
Phoenix—First class trains.

RULE 83 (B). At open train-order offices trains may register by ticket as follows:

Phoenix Yard	First class trains
Mescal	All trains
Bowie	Westward trains

Tucson—Engineers of light engines from east will leave register ticket with engine dispatcher for operator for registration.

RULE 83 (E). A train, when authorized by train order, may check the register against an extra train and proceed if such extra train appears on the register with the number and date of its restricting order registered in column captioned “Signals.”

When a train is so authorized to check the register, it must register and place the restricting order number and date in column captioned “Signals.”

RULE 93. Yard limits are established at the following stations and limits as follows:

Yuma	West MP	731.50
	East MP	737.80
Phoenix	West MP	900.96
	East MP	908.79
Mesa	West MP	920.45
	East MP	923.23
Ray Jct.	West MP	986.84
	East MP	988.72
Hayden Jct.	West MP	998.80
	East MP	1004.90
Gila	West MP	854.20
	East MP	857.70
Tucson	West MP	981.96
	East MP	989.00 (Track 2)
	East MP	988.09 (Track 1)
Nogales Branch	East MP	987.42
East—South Line	MP	990.37 (via South Yard)
Nogales	West MP	1046.37
	East MP	1049.89
Benson	West MP	1031.60
	East MP	1034.01
Bowie	West MP	1097.10
	East MP	1100.00
Globe Branch	East MP	1099.50
Lordsburg	West MP	1147.19
	East MP	1151.38
Safford	West MP	1136.65
	East MP	1138.34
Globe	West MP	1218.70
	East MP	1223.22
Miami	West MP	1229.82
	East MP	1234.20

Portions of main track not protected by automatic block signals are located and described as follows:

Phoenix—Freight main track. Eastward between “Block signal limit” sign on mile post 905.8 and dwarf light signal 9064. Westward between “End of block” sign at mile post 906.2 and home signal 9055.

Union Station tracks—Eastward between “End of block” sign opposite dwarf light signal 9059 and dwarf light signal 9064. Westward between “End of block” sign at mile post 906.2 and dwarf light signal 9059.

Tucson—Passenger track No. 2 (first track north of station), and passenger track No. 1 (second track north of station). Eastward between “End of block” sign at mile post 983.6 and dwarf light signal 9838. Westward between “End of block” sign opposite dwarf light signal 9838 and home signal 9835. Main track (third track north of station) between “End of block” sign at mile post 984.1 and home signal 9835.

Comply with third paragraph Rule 93 within these specified limits.

RULE 97. Extra trains must not run via Creamery or Florence branches unless train order so specifies.

RULE 98. RAILROAD CROSSINGS AT GRADE NOT INTERLOCKED:

South Line Crossing.—Gate with red signal normal position across South Line track. Before changing position of gate and making movement on South Line track, protect in each direction on Nogales Branch as per Rule 99.

RULE 103 (A) Yuma—Trains and engines must stop and be preceded by a flagman before crossing 1st, 2d, 3rd, and 4th Streets. Engines must be attached to cars handled over crossings.

A flagman must precede all movements over:
Tempe (Creamery Branch), Mill Ave. and 8th St.
Tucson, West Congress St.
Nogales, Court and Park Sts.
Globe, Hackney St. and eastward over Murphy St.
Miami, Latham Blvd., and Adonis Ave.

In general, highway crossing signals are so designed that they will not operate for trains or engines making a reverse movement after having passed over the crossing. Trains or engines making such reverse movements must protect the crossing unless it is known that signals are operating.

RULE 103 (B). Back-up hose must be used by yard engines making back-up movements with cars:
Tucson, between North and South yards.
Globe, when delivering cars to O. D. Co. transfer.

RULE 104. THE NORMAL POSITION OF SWITCHES AT THE END OF DOUBLE TRACK AND AT JUNCTIONS, WILL BE AS FOLLOWS:

East Yard	Oil buffer spring switch end double track, for trains entering the double track.
Dome	Oil buffer spring switch at end of double track, for trains entering double track.
Phoenix Yard	Oil buffer spring switch at west end freight main and Union Station tracks, for Union Station. Oil buffer spring switch at east end double track, for trains entering the double track.
McQueen	Christmas Branch, for Christmas Branch from siding.
Picacho	Operators, when on duty, will handle switches near train-order office for movements to and from Phoenix Line and siding.
Stockham	Oil buffer spring switch end double track, for trains entering the double track.

DERAILS IN MAIN TRACK AS FOLLOWS:

Litchfield Park, 320 feet west of east end of track.
Christmas, 250 feet east of west switch.
Nogales, 221 feet west of west switch, may be run through by eastward trains.
South Line Crossing, 165 feet east on South Line.

RULE 105. FOLLOWING TRACKS ARE DESIGNATED FOR USE AS SIDINGS:

Fowler	Track north of main track.
Ray Junction	Track south of main track.
Mohawk	First track north of main track, eastward trains. Second track north of main track, westward trains.
Red Rock	Track north of main track.
Benson	Track north of main track, eastward trains. Track south of main track, east of station, westward trains.
Dragoon	Track north of main track, eastward trains. Track south of main track, westward trains.
Bowie	Track north of main track, from west switch to switch just east of station, eastward trains. Track north of main track, from east switch to switch just east of station, westward trains.
Steins	First track north of main track, westward trains. Second track north of main track, eastward trains.
San Carlos	First track north of main track.

RULE 221. Trains must obtain clearance before leaving Tempe to or from Creamery Branch, Bowie, Globe, Miami.

Trains originating at Phoenix must obtain a clearance before leaving Phoenix Yard.

RULE 221 (A). It is unnecessary for dispatchers to O. K. a clearance and operators to transmit the address and order numbers from clearance to the train dispatcher, unless requested to do so by train dispatcher, nor will they complete that portion of clearance reading:

"OK at..........M..........Chief Train Dispatcher," all provided that said orders affect movement of a train wholly within block system or signal dispatching limits.

If the orders affect movement, either wholly or in part, outside of the block system or signal dispatching limits, operators must repeat address and order numbers and obtain dispatcher's OK before the orders are delivered.

RULE 825. INSTRUCTIONS FOR SETTING HAND BRAKES AT:

Tucson, at least 15 hand brakes must be set on west end and 10 hand brakes on east end of all freight trains arriving North yard. At least 7 handbrakes must be set on west end of each cut of cars in P. F. E. yard, and on S. P. tracks Nos. 1, 2, and 3 at least 15 hand brakes must be set on west end. These brakes must be set with brake club after train or cut has stopped. An employe releasing any of these brakes will be held responsible to see that the same number are set before releasing.

Tucson, on passenger trains after engine is spotted for taking oil, two hand brakes must be set on the head end and two on rear end. If necessary to detach engine after these hand brakes have been released, employe before detaching engine must see that sufficient hand brakes have again been set.

Outfit cars must not be left in front of warehouses, storehouses, lumber yards, or other buildings.

AUTOMATIC BLOCK SYSTEM

RULE 509. A train or engine, when backing out of a siding or other track in block system limits, will, unless backed to clear block signal, proceed as if signal be in stop position.

That portion of Rule 509 (e) reading: ". . . and the intervening track is seen to be clear . . ." is interpreted as referring to the track being clear of locomotives and/or cars.

When eastward trains are to meet or wait for opposing trains while occupying main track at Kendall, such trains will stop west of signal 9112.

Eastward trains on second main track will be governed by position of signals 9112 and 9113 before entering main track.

When signal 7372 east end of double track, East Yard, indicates stop for eastward trains, and signal 9813, west end of double track at Stockham, indicates stop for westward trains, oil buffer spring switch must be thrown by hand to reverse position and again restored to normal position after train has passed over switch.

Account no overlap on light signal 9838 located at end of block just east of Tucson yard office, and no overlap on light signal 9841 located just west of car shop on Nogales Branch, trains and engines moving between these signals, also trains and engines moving on what is used as main track between west end of car shed and light signal 9838, must do so with extreme caution.

When a block signal indicates stop on track No. 2, trains may proceed as follows:

Eastward trains Tucson to Mescal will be governed by Rule 509 applicable to double track.

Westward trains Mescal to Esmond will be governed by Rule 509 applicable to single track.

Westward trains Esmond to Tucson will have no block signal protection after passing signal 9978 located one-half mile west of west switch Esmond.

Between Tucson and Polvo, automatic signals are on the left of the track in the direction of movement.

OIL BUFFER SPRING SWITCHES

A block signal with a triangular number plate is actuated by some special protective device and special action required as follows:

When a block signal in advance of a facing point oil buffer spring switch indicates "STOP", careful examination of switch must be made before passing over it. When making trailing point movement and train is stopped on switches, a reverse movement must not be made, nor the slack taken until the switch has been thrown by hand. When movement has been completed through switch, reverse movement must not be made until point closes.

Running switches are prohibited and sand, blow-off cocks and injectors must not be used nor boosters started, while passing over these switches.

Switches are located as follows and speed indicated must not be exceeded when passing over such switches:

		A.B.Signal	M.P.H.
East Yard:	(Eastward)	7372	25
	(Westward)	7375	60
Dome	(Eastward)	7532	25
	(Westward)		30
Phoenix:	West end freight main and Union Station tracks:		
	(Eastward)	9052	10
	(Westward)		15
	East end double track:		
	(Eastward)		15
	(Westward)	9075	10
Stockham:	(Eastward)	9810	60
	(Westward)	9813	35

RULE 511. Within block signal limits after switches of a crossover are thrown wait three minutes before crossing over unless block signals protecting the movement can be seen to be in stop position not less than one-half mile distant.

RULE 516. Overlaps located as follows:

Gillespie	Signal 8496.	Eastward trains.
23rd Ave. Phoenix	" 9022.	Eastward trains.
	" 9053 and 9055.	Westward trains.
McQueen	" 9218.	Eastward trains.
Roskruge	" 9626.	Eastward trains.
	" 9657.	Westward trains.
Cortaro	" 9704.	Eastward trains.

INTERLOCKING
WELLTON

The two crossover switches 4,000 feet east and the two crossover switches 400 feet west of station are operated by signal operator.

Limits extend from two-arm signal on Gila Line and two-arm signal on Phoenix Line 4,000 feet east of station to light signal on westward track 400 feet west of station and to two-arm signal on eastward track 1,000 feet west of station.

The derail at east end of siding is electrically locked, and can be operated by trainmen only when released by signal operator.

Switches and derails to spurs leading from westward main track just west and east of station are hand-thrown. Trains or engines before entering main track from these spurs must receive authority from signal operator.

TUCSON, SIXTH AVENUE

Limits on westward track extend from dwarf signal at derail to signal 9835, and on eastward track from dwarf signal opposite signal 9835 to dwarf signal 500 feet east.

Signals permitted by Rule 628 may be given from tower.

MESCAL

Interlocking signals of the Rio Grande Division will display indication in the upper quadrant.

Limits are between home signals governing east switch of east crossover and west switch of west crossover of the Rio Grande Division, and home signals governing east switches and west switches of sidings of the Tucson Division. Switches are controlled by signal operator, except switch leading from north siding to water and outfit spurs, from south siding to both legs of wye and to west end of coal track.

Switch and derail east end coal track are hand-thrown but must not be used until permission is secured from signal operator.

Where hand signals, as perscribed by Rule 628, cannot be seen, trains stopped will call the signal operator and secure permission to proceed; also to throw switches by hand in event the remote control appliance is inoperative.

The beginning of the Tucson Division single track is at east switch of west crossover. The beginning of the Rio Grande Division single track is at east switch of east crossover.

TRAIN AND AIR INSPECTION

Freight trains between Yuma and Tucson via either the Gila or the Phoenix lines may run not to exceed a distance of 65 miles except, perishable, manifest, and stock trains with ten or more cars of stock, may run a distance of 87 miles without stopping for inspection. Above mentioned trains, however, should not exceed a distance of 65 miles without inspection unless it is known that the movement of the train can be expedited by doing so; and on other lines not to exceed a distance of 55 miles without stopping for inspection. This does not relieve trainmen, however, from making inspection when stops permit and other points specified in time table or whenever it is necessary in the judgment of conductor or engineer.

Freight trains on descending grade must stop five minutes for inspection at:

Saddle or Papago
Ocapos or Bosque
Mobile or Enid
Mescal (Eastward)
Tully or Sibyl
Manzoro or Dragoon (Westward)
Cochise, Hado, or Willcox
Bowie
Bawtry or San Simon
Mondel or Steins (Westward)
Cutter

AIR BRAKE RULES

RULE 2. Enginemen when leaving roundhouse will make running air test, to ascertain if brakes are in operative condition.

RULE 11. Air brake inspection at points where no car inspectors are on duty, and motive power and/or engine crew or train crew is changed on a freight train, shall be made as follows:

After train is made up and engine attached, engineer will apply brakes with 20 pound service reduction and leave them applied. Trainmen will then pass along train to determine that brake is applied on each car. Numbers of any cars found with inoperative air brakes must be reported on form 2809 and such cars assembled and switched to rear of train, next ahead of caboose, before leaving that station. After this inspection has been made, brakes have been released, and trainmen have noted that normal brake pipe pressure has been restored as indicated on caboose gauge, and have given signal to engineer, latter must comply with last part of Rule 11 to avoid brakes sticking from an overcharge of the brake system, etc.

If necessary to switch any cars to rear account brakes being inoperative, Rule 17 must be complied with before departure.

Rule 34 must be observed to determine by rolling inspection that each brake releases properly.

AIR BRAKE RULES—Continued

RULE 13. At lay-over points for passenger equipment, where there are no car inspectors, crews must make air brake test before starting on initial trip, as follows: Brake pipe must be fully charged, engineer then apply air brake; trainmen must examine each car to see whether all brakes are applied. If all brakes apply, trainmen must give signal 16 (e) from rear car, examine each car in train to see that all brakes release, and report condition to the engineer.

RULE 16. Running air brake test must be made at:
Mescal (Eastward)
Pinal

RULE 17. Rear end air brake test must be made by freight and mixed trains immediately before departure at:
Mescal (Eastward) Mondel or Steins (Westward)
Manzoro or Dragoon (Westward) Pinal

RULE 56. Retainers will be used on grades on freight trains of less than 100 Ms per operative brake, when necessary in the judgment of conductor and engineer and on trains of 100 Ms or more per operative brake as follows:

1.4% to 1.5% incl. one retaining valve for every 150 Ms.
Over 1.5% to 1.8% incl. one retaining valve for every 140 Ms.
Over 1.8% to 2.2% incl. one retaining valve for every 120 Ms.
Over 2.2% incl. one retaining valve for every 100 Ms.

Where retainers are used the rate of speed of freight trains on any grade of over one per cent must not exceed 25 miles per hour, and on grades of this character, more than five miles long, for the first five miles the time consumed in traveling any one mile shall not be less than three minutes. This will not be authority to exceed specified speed restrictions.

Grades of over 1% located as follows:

PICACHO SUBDIVISION

Hayden Mills to Hayden Junction	2.2%

NORTH LINE—EASTWARD

Mescal to Benson	1.4%
Steins to Mondel	1.4%

WESTWARD

Steins to Bawtry	1.4%
Sibyl to Benson	1.4%

GLOBE BRANCH—EASTWARD

Pinal to Globe		2%
Globe to Kiser	M. P. 1221.6 to 1221.7	1.5%
	M. P. 1222.1 to 1222.8	2%
	M. P. 1226.3 to 1226.7	1.5%
	M. P. 1228.8 to 1229.2	1.4%

WESTWARD

Live Oak to Miami		3%
Miami to Burch	M. P. 1231.0 to 1230.8	1.4%
	M. P. 1229.2 to 1228.8	1.4%
Pinal to Cutter		2.2%

MISCELLANEOUS

1. At Wellton, Aztec, Sentinel, Gila, Casa Grande, Florence, Hayden Jct., Benson, Bowie, and San Simon, water for locomotive purposes is treated and must not be taken for domestic use except as follows:

Aztec, water rack.

Sentinel, water rack and two columns at east end.

Hayden Jct., by closing valve between treater and water column.

Benson, either of the two columns at station, by first opening switch in box on outside of freight house. Sign giving instructions at box.

Bowie, notify pumper and he will cut out treatment.

Eastward freight trains take water at Benson unless dispatcher instructs otherwise.

Westward identified and other important freight trains may take water at Sibyl only when it will avoid stopping at Benson. Other westward freight trains will not take water at Sibyl except in case of emergency, and then only sufficient to make Benson.

In all cases where it is necessary to make a short move with heavy freight train to reach water or oil column, including that required to spot second engine of double-headed train, locomotive must be cut off before spotting at column.

One helper may be placed behind caboose if of steel underframe construction and cars ahead of caboose are not rear end cars; otherwise cut in ahead of twenty-five per cent of tonnage, or more if necessary to cut in ahead of all rear end cars. Road engines double-heading or helper engine may be placed on head end of freight train when tonnage handled does not exceed 75 per cent of the total rating of both engines.

4. For the purpose of pushing trains out of yards:

(a) No engine will be placed behind wooden underframe caboose or other wooden frame equipment.

(b) Engines of 4000 or 4100 class will not be placed behind steel underframe cabooses.

(c) Air will not be coupled through pusher engine.

(d) Yard engines regularly so used will be equipped with Russell-Jordan device to hold the coupler pin from dropping, thus making it unnecessary for employes to uncouple the pusher engine when cutting off.

(e) In no case shall the knuckle be removed, or closed, or cutting lever temporarily fastened in release position on a pusher engine, as means of preventing coupling being made.

(f) Unless local conditions require, it will not be necessary to stop trains to detach pusher engines.

In helper service:

(a) No helper engine will be placed behind wooden underframe cars or cabooses.

(b) Helper engines of 4000 or 4100 class will not be placed behind steel underframe cabooses.

(c) In no case will more than one helper engine be placed behind steel underframe cabooses.

(d) When helper engines are used in rear of freight trains, consolidation and lighter class must be placed behind heavier class.

(e) Engines must not be cut off or coupled to a train while same is in motion.

10. FOLLOWING TRACKS NOT TO BE USED BY FOLLOWING OR HEAVIER CLASS ENGINES

3700 CLASS

Pozo	Spur

3300 CLASS

Creamery Branch.
Tempe Branch sidings and spurs.
Christmas Branch.

3200 CLASS

Granite Spur	3600 class engines, or heavier, must not use No. 2 track beyond high line switch. No. 1 track may be used on each lead but not beyond the boiler house.
Maricopa	South leg wye, pump house spur.
Cactus Pit	All tracks.
Tempe	Tempe Milling Co., Phoenix Mill and gravel pit spurs. East leg wye, house track, tracks 2 and 3.
Mesa	McKellips, Standard Oil, and Texas Oil spurs. Shell Oil and Independent Cotton & Oil Co. spurs. Mutual Cotton Oil spur.
Mesa—North Mesa	Spurs.
Christmas Branch. (Between Winkelman and Christmas.)	
Florence Branch.	
Nogales Branch.	
Benson	Oil spur, team, south coal, hotel.
Middle yard wye track; except in emergency SP-1, SP-2, F-1, F-3, F-4, F-5, MK-5, MK-6, MK-7, MK-8 and MK-9 class engines may turn on wye, but must head onto east leg.	
Fairbank Branch	Yard and wye.
Willcox	Stock track spur.
Bowie	Oil spur east of west end of pump house.
Lordsburg	Transfer and house tracks, A. & N. M. yard.
Globe Branch.	

2500, 2700, 2800, OR 3100 CLASS

Wellton	Oil spur.
Tacna	Spur.
Colfred	Spur.
Pembroke	Spur.
Mohawk	West spur.
Stoval	Spur.
Musina	Outfit spur.
Stanwix	Spur.
Sentinel	Oil spur.
Tartron	Spur.
Smurr	Spur.
Coledon	Spur.
Ocapos	Spur.
Estrella	Spur.
Enid	Spur.
Heaton	Spur.
Toltec	Spur,west end of siding.
Eloy	Miller-Cummings track.
South Track between	Tovrea Sewage spur and Salt River bridge.
Creamery Branch	Siding and Rock Quarry spur.
Creamery	Track beyond Creamery plant.
Tempe Pump'g Plant	Spur.
Mesa	Drew's spur (Must back in).
Magma	Spur.
Rankin	Spur.
Esmond	Spur.
Vail	Spur.
Irene	Spur.
Pantano	Spur.
Buell	Spur.
Amole	Spur.
Mescal	Outfit spur.
Ochoa	Spur.
Lancha	Spur.
Bowie	Caboose track.

Engines must not use:
Spurs: Buckeye, Seaside Oil Co.; Florence; Burns; Wymola.

11. At Litchfield Park, Boswell Spur is protected by gate, which must be kept closed and locked when not in use.

At Cowden, corral track must be kept clear for use of first-class trains.

At Phoenix, Santa Fe and Southern Pacific trains may jointly use tracks at east and west end of Union Station. Yard and light engines must take every precaution possible to avoid delaying first-class trains on all tracks within Union Station zone. Trains will approach switch at entrance to Union Station tracks prepared to stop and will proceed only when track is known to be clear.

Second main track between east end Phoenix yard and Kendall east switch may be used by freight trains when authorized by train order. Single track rules apply.

At Bowie, No. 4 track in west yard must be kept clear and used for through movement.

15. At Tucson, westward trains except first-class and light engines must not pass crossover switch near signal 9851 without proceed signal from yardman.

20. Handling of freight cars in trains behind passenger cars carrying passengers prohibited. The term "freight car" does not include a baggage, express or mail car, or a caboose.

When necessary to handle passenger equipment except official cars in freight trains, it must be placed next to caboose, providing rear end freight cars in train will permit.

Baggage, express, mail, refrigerator or other head end cars must not be handled on rear of passenger trains unless trainmen can pass through them.

At Granite Spur, engines placing loaded cars on high-line spur track will not handle more than two loads at one time, using sufficient other cars between the loads and engine to avoid engines passing high-line spur switch.

At Tovrea, entrance to Tovrea Packing Co. plant is protected by gates, which must be kept closed and locked when not in use. Look out for rubbish and material alongside tracks in this yard.

Between Price and Christmas look out for rock and land slides.

At Hayden, entrance to R. C. C. Co. plant is protected by gates, which must be closed and locked at night.

At Coolidge, cars must not be detached in motion to Indian Service spur.

At Picacho, look out for cars on west leg of wye.

At P.F.E. yard, Tucson, look out for ice and rubbish alongside tracks.

At Willcox, look out for bedding sand between tracks 2 and 3.

Between Naches and Peridot look out for rock and land slides.

Engines, except in work train service, must not make continued backward movement between any points when it can be avoided, and must be turned for next service before tying up.

25. Electric lanterns may be used for displaying white light only.

SPEED RESTRICTIONS

Maximum speed of passenger trains must not exceed 50 M. P. H. and freight and mixed trains 35 M. P. H. except as otherwise provided for. Speed restrictions in miles per hour, will apply as follows; with engines—motors as designated.

Pages	TERRITORY	PASSENGER					FREIGHT			LIGHT ENGINES RUNNING FORWARD		
		Maximum	T 37 Mt 1, 2, 3, 4, 5 P 1, 3, 5, 12	Mk 5, 6, 7, 8, 9 M 4, 6, 9, 11	Mk 2, 4	Sp. 1, 2, 3 F 1, 3, 4, 5 C 8, 9, 10	Freight Maximum	Engines Backing	Switch Engines S-SE	T 37 Mt 1, 2, 3, 4, 5 P 1, 3, 5, 12	Sp. 1, 2, 3 F 1, 3, 4, 5 Mk 5, 6, 7, 8, 9 C 8, 9, 10 M 4, 6, 9, 11	Mk 2, 4
	Through interlocking limits with caution. Through cross-overs, turnouts except Dome, and two east crossovers Wellton	10	10	10	10	10	10	10	....	10	10	10
2	Yuma-Somerton	15		15	....	....	15	15	....	....	15	....
2	Yuma-Somerton trestle over canal at Recl'm't'n H'dq't'rs	8		8	....	....	8	8	....	....	8	....
2	Yuma-Yuma yard, (sw. 800 ft. east of subway)	15	15	15	15	15	15	15	15	15	15	15
2	Yuma east sw.—East Yard, Oil buffer spring sw.	60	60	50	40	45	40	30	20	45	35	30
2	East Yard Oil buffer spring switch—M. P. 745	65	65	50	40	45	40	30	....	45	35	30
2	M. P. 745 - 748.58	60	60	50	40	45	40	30	....	45	35	30
2	M. P. 748.58—M. P. 755.12	30	30	30	30	30	30	30	....	30	30	30
2	Dome crossovers and turnouts	20	20	20	20	20	20	20	....	20	20	20
2	M. P. 755.12 - 755.78	60	60	50	40	45	40	30	....	45	35	30
2	M. P. 755.78 - 762.88	50	50	50	40	45	35	30	....	45	35	30
2	M. P. 762.88 - Wellton	60	60	50	40	45	40	30	....	45	35	30
2	Wellton east crossovers	20	20	20	20	20	20	20	....	20	20	20
2	Wellton east crossover—M. P. 771	30	30	30	30	30	30	30	....	30	30	30
2	M. P. 771 - 776.36	60	60	50	40	45	40	30	....	45	35	30
2	M. P. 776.36 - 777.78	50	50	50	40	45	35	30	....	45	35	30
2	M. P. 777.78 - 845.94	60	60	50	40	45	40	30	....	45	35	30
2	M. P. 845.94 - 847.28	50	50	50	40	45	35	30	....	45	35	30
2	M. P. 847.28 - 887.42	60	60	50	40	45	40	30	....	45	35	30
2	M. P. 887.42 - 887.61	50	50	50	40	45	35	30	....	45	35	30
2	M. P. 887.61 - 890.53	60	60	50	40	45	40	30	....	45	35	30
4	Litchfield Branch	20	20	20	20	20	20	15	....	20	20	20
2	M. P. 890.53 - 890.78	50	50	50	40	45	35	30	....	45	35	30
2	M. P. 890.78 - 893.54	60	60	50	40	45	40	30	....	45	35	30
2	M. P. 893.54 - 894.48	50	50	50	40	45	35	30	....	45	35	30
2	M. P. 894.48 - Phoenix 19th Ave	60	60	50	40	45	40	30	....	45	35	30
2, 3	Phoenix 19th Ave—18th St	15	15	15	15	15	15	15	15	15	15	15
3	Phoenix yard limits—Kendall (south track)	25	25	25	25	25	25	25	....	25	25	25
3	Phoenix 18th St. - M. P. 912.74	60	60	50	40	45	40	30	....	45	35	30
3	M. P. 912.74 - 913.12	40	40	40	40	40	30	30	....	40	35	30
3	M. P. 913.12 - Tempe	50	50	50	40	45	35	30	....	45	35	30
5	Creamery Branch	20	20	20	20	20	20	20	....	20	20	20
3	Tempe - M. P. 915.79	40	40	40	40	40	25	25	....	40	25	25
4	Tempe Branch	20	20	20	20	20	20	20	....	20	20	20
3	M. P. 915.79 - 920.86	60	60	50	40	45	40	30	....	45	35	30
3	M. P. 920.86 - Mesa	40	40	40	40	40	25	25	....	40	25	25
3	Mesa yard, west switch and east city limits	20	20	20	20	20	20	20	....	20	20	20
3	Mesa Curve M. P. 922	10	10	10	10	10	10	10	....	10	10	10
3	Mesa - M. P. 924.12	60	60	50	40	45	40	30	....	45	35	30
3	M. P. 924.12 - 927.69	50	50	50	40	45	35	30	....	45	35	30
3	M. P. 927.69 - Chandler	60	60	50	40	45	40	30	....	45	35	30
3	Chandler - M. P. 945.49	60	60	50	40	45	40	30	....	45	35	30
3	M. P. 945.49 - M. P. 946.78	50	50	50	40	45	35	30	....	45	35	30
3	M. P. 946.78 - M. P. 958.03	60	60	50	40	45	40	30	....	45	35	30
5	Florence Branch	20	20	20	20	20	20	20	....	20	20	20
3	M. P. 958.03 - M. P. 959.02	50	50	50	40	45	35	30	....	45	35	30
3	M. P. 959.02 - Picacho, west wye switch	60	60	50	40	45	40	30	....	45	35	30
3	West wye switch - Picacho	30	30	30	30	30	30	30	....	30	30	30
3	Picacho crossover	10	10	10	10	10	10	10	....	10	10	10
3	Picacho - M. P. 938	60	60	50	40	45	40	30	....	45	35	30
3	M. P. 938-952	65	65	50	40	45	40	30	....	45	35	30
3	M. P. 952-956	60	60	50	40	45	40	30	....	45	35	30
3	M. P. 956-964.7	65	65	50	40	45	40	30	....	45	35	30
3	M. P. 964.7-965.5	60	60	50	40	45	40	30	....	45	35	30
3	M. P. 965.5 - 975.7	65	65	50	40	45	40	30	....	45	35	30
3	M. P. 975.7 - South Line Jct.	60	60	50	40	45	40	30	....	45	35	30
3, 7	Tucson North Yd., South Line Jct.—Signal 9851	15	15	15	15	15	15	15	15	15	15	15

SPECIAL INSTRUCTIONS

SPEED RESTRICTIONS—(Continued)

Pages	TERRITORY	PASSENGER					FREIGHT			LT. ENGINES RUNNING F'WD.		
		Maximum	T 37 Mt 1, 2, 3, 4, 5 P 1, 3, 5, 12	Mk 5, 6, 7, 8, 9 M 4, 6, 9, 11	Mk 2, 4	SP 1, 2, 3 F 1, 3, 4, 5 C 8, 9, 10	Freight and Mixed Maximum	Engines Backing	Switch Engines S-SE	T 37 Mt 1, 2, 3, 4, 5 P 1, 3, 5, 12	SP 1, 2, 3 F 1, 3, 4, 5 Mk 5, 6, 7, 8, 9 C 8, 9, 10 M 4, 6, 9, 11	Mk 2, 4
4	Wellton, east crossover	20	20	20	20	20	20	20	....	20	20	20
4	Wellton, east crossover - M. P. 771.06	50	50	50	40	45	35	30	....	45	35	30
4	M. P. 771.06 - 772.06	60	60	50	40	45	40	30	....	45	35	30
4	M. P. 772.06 - 779.60	50	50	50	40	45	35	30	....	45	35	30
4	M. P. 779.60 - 787	60	60	50	40	45	40	30	....	45	35	30
4	M. P. 787 - 790	65	65	50	40	45	40	30	....	45	35	30
4	M. P. 790 - 792.50	60	60	50	40	45	40	30	....	45	35	30
4	M. P. 792.50 - 794.03	30	30	30	30	30	30	30	....	30	30	30
4	M. P. 794.03 - 797	60	60	50	40	45	40	30	....	45	35	30
4	M. P. 797 - 800	65	65	50	40	45	40	30	....	45	35	30
4	M. P. 800 - 823.61	60	60	50	40	45	40	30	....	45	35	30
4	M. P. 823.61 - 825.18	30	30	30	30	30	30	30	....	30	30	30
4	M. P. 825.18 - 843	60	60	50	40	45	40	30	....	45	35	30
4	M. P. 843 - 852	65	65	50	40	45	40	30	....	45	35	30
4	M. P. 852 - Gila	60	60	50	40	45	40	30	....	45	35	30
4-5	Gila Yard, West and East switches	15	15	15	15	15	15	15	....	15	15	15
5	Gila - M. P. 866.98	60	60	50	40	45	40	30	....	45	35	30
5	M. P. 866.98 - 867.85	50	50	50	40	45	35	30	....	45	35	30
5	M. P. 867.85 - 870.12	30	30	30	30	30	30	30	....	30	30	30
5	M. P. 870.12 - 871.40	60	60	50	40	45	40	30	....	45	35	30
5	M. P. 871.40 - 872.10	50	50	50	40	45	35	30	....	45	35	30
5	M. P. 872.10 - 882	60	60	50	40	45	40	30	....	45	35	30
5	M. P. 882 - 885	65	65	50	40	45	40	30	....	45	35	30
5	M. P. 885 - 898	60	60	50	40	45	40	30	....	45	35	30
5	M. P. 898 - 902	65	65	50	40	45	40	30	....	45	35	30
5	M. P. 902 - Casa Grande	60	60	50	40	45	40	30	....	45	35	30
5	Casa Grande - Picacho	60	60	50	40	45	40	30	....	45	35	30
7	Tucson, N. Yd., Westward Main track, signals 9883 - 9851						20	20	20	20	20	20
7	Tucson, Signal 9851 - M. P. 991	50	50	50	40	45	35	30	....	45	35	30
7	M. P. 991 - 997	65	65	50	40	45	40	30	....	45	35	30
7	M. P. 997 - 1004.27	50	50	50	40	45	35	30	....	45	35	30
7	M. P. 1004.27 - 1010.36	30	30	30	30	30	25	25	....	25	25	25
7	M. P. 1010.36 - 1012.62	50	50	50	40	45	35	30	....	45	35	30
7	M. P. 1012.62 - 1014.00	30	30	30	30	30	25	25	....	25	25	25
7	M. P. 1014.00 - 1016.77	50	50	50	40	45	35	30	....	45	35	30
7	M. P. 1016.77 - 1018.08	30	30	30	30	30	25	25	....	25	25	25
7	M. P. 1018.08 - 1018.75	50	50	50	40	45	35	30	....	45	35	30
7	M. P. 1018.75 - 1018.98	40	40	40	40	40	30	30	....	40	35	30
7	M. P. 1018.98 - 1020.63	50	50	50	40	45	35	30	....	45	35	30
7	M. P. 1020.63 - 1021.31	40	40	40	40	40	30	30	....	40	35	30
7	M. P. 1021.31 - Mescal west interlocking limits	50	50	50	40	45	35	30	....	45	35	30
7	Mescal interlocking limits, normal route	35	35	35	35	35	25	25	....	35	25	25
7	Mescal other crossovers and turnouts	15	15	15	15	15	15	15	....	15	15	15
7	Mescal east interlocking limits—M. P. 1026	50	50	50	40	45	35	30	....	45	35	30
7	M. P. 1026 - 1029	65	65	50	40	45	40	30	....	45	35	30
7	M. P. 1029 - 1030.86	50	50	50	40	45	35	30	....	45	35	30
7	M. P. 1030.86—west switch Benson	40	40	40	40	40	30	30	....	40	35	30
7	Benson yard	30	30	30	30	30	30	30	....	30	30	30
7	East switch Benson - M. P. 1036.96	50	50	50	40	45	35	30	....	45	35	30
7	M. P. 1036.96 - 1040.78 #(See foot note)	28	28	28	28	28	25	25	....	25	25	25
7	M. P. 1040.78 - 1041.98	50	50	50	40	45	35	30	....	45	35	30
7	M. P. 1041.98 - 1043.26	45	45	45	40	45	30	30	....	45	30	30
7	M. P. 1043.26 - 1044.50	50	50	50	40	45	35	30	....	45	35	30
7	M. P. 1044.50 - 1045.14 #(See foot note)	28	28	28	28	28	25	25	....	25	25	25
7	M. P. 1045.14 - 1047.50	50	50	50	40	45	35	30	....	45	35	30
7	M. P. 1047.50 - 1048.65	40	40	40	40	40	30	30	....	40	35	30
7	M. P. 1048.65 - 1050.65	50	50	50	40	45	35	30	....	45	35	30
7	M. P. 1050.65 - 1050.86	40	40	40	40	40	30	30	....	40	35	30
7	M. P. 1050.86 - 1058	50	50	50	40	45	35	30	....	45	35	30
7	M. P. 1058 - Willcox	65	65	50	40	45	40	30	....	45	35	30
7	Willcox - M. P. 1076	60	60	50	40	45	40	30	....	45	35	30
7	M. P. 1076 - 1080	65	65	50	40	45	40	30	....	45	35	30
7	M. P. 1080 - west switch Bowie	60	60	60	40	45	40	30	....	45	35	30
7	Bowie yard	15	15	15	15	15	15	15	....	15	15	15
7	Bowie - M. P. 1121	65	65	50	40	45	40	30	....	45	35	30
7	M. P. 1121 - M. P. 1122.51	50	50	50	40	45	35	30	....	45	35	30
7	M. P. 1122.51 - 1122.60	40	40	40	40	40	30	30	....	40	35	30
7	M. P. 1122.60 - 1124.44	50	50	50	40	45	35	30	....	45	35	30
7	M. P. 1124.44 - 1128.68	30	30	30	30	30	25	25	....	25	25	25
7	M. P. 1128.68 - Lordsburg	50	50	50	40	45	35	30	....	45	35	30

#Passenger trains handled by MT 1-2-3-4-5 class engines maximum speed 30 MPH.

Page	TERRITORY	PASSENGER		FREIGHT		LIGHT ENGINES RUNNING FORWARD	
		Maximum	Gas-Electric T 37 M 4, 6, 9, 11 C 8, 9, 10 Mk 2, 4, 5, 6, 7, 8, 9	Freight and Mixed Maximum	Engines Backing	T 37 M 4, 6, 9, 11 C 8, 9, 10 Mk 5, 6, 7, 8, 9	Mk 2, 4
5	Christmas Branch	40	....	30	....	....	....
5	M. P. 923.89 - 924.08	35	35	25	20	35	30
5	M. P. 924.08 - 955.93	40	40	30	20	35	30
5	M. P. 955.93 - 956.07	35	35	25	20	35	30
5	M. P. 956.07 - 964.28	40	40	30	20	35	30
5	M. P. 964.28 - 964.54	30	30	20	20	30	30
5	M. P. 964.54 - 968.79	40	40	30	20	35	30
5	M. P. 968.79 - 972.07	30	30	30	20	30	30
5	M. P. 972.07 - 972.15	15	15	15	15	15	15
5	M. P. 972.15 - 974.12	30	30	25	20	30	30
5	M. P. 974.12 - 974.20	15	15	15	15	15	15
5	M. P. 974.20 - 975.34	30	30	30	20	30	30
5	M. P. 975.34 - 975.48	15	15	15	15	15	15
5	M. P. 975.48 - 976.21	30	30	30	20	30	30
5	M. P. 976.21 - 976.36	20	20	20	20	20	20
5	M. P. 976.36 - 980.35	30	30	25	20	30	30
5	M. P. 980.35 - 980.41	15	15	15	15	15	15
5	M. P. 980.41 - 980.97	30	30	25	20	30	30
5	M. P. 980.97 - 981.03	25	25	25	20	25	25
5	M. P. 981.03 - 981.70	30	30	30	20	30	30
5	M. P. 981.70 - 981.78	25	25	25	20	25	25
5	M. P. 981.78 - 983.27	30	30	25	20	30	30
5	M. P. 983.27 - 987.43	25	25	25	20	25	25
5	Ray Jct. yard	15	15	15	15	15	15
5	M. P. 988.24 - 999.53	30	30	25	20	30	30
5	Hayden Jct. Yd. & R&GVRR	15	15	15	15	15	15
5	M. P. 1000.64 - Winkelman	30	30	25	20	30	30
5	Winkelman - Christmas	15	15	15	15	15	15
6	Nogales Branch	40	....	35	....	....	....
6	Tucson yard	15	15	15	15	15	15
6	M. P. 986.88 - Nogales	40	40	35	20	40	35
6	Nogales Yard	20	20	20	20	20	20
6	Globe Branch	40	....	30	....	....	....
6	Bowie yard	15	15	15	15	15	15
6	Bowie - M. P. 1137.03	40	40	30	20	40	30
6	Safford yard	15	15	15	15	15	15
6	M. P. 1138.00 - Pima	40	40	30	20	40	30
6	M. P. 1146.45 - 1178.03	40	40	30	20	40	30
6	M. P. 1178.03 - 1178.17	30	30	25	20	30	25
6	M. P. 1178.17 - 1206.83	40	40	30	20	40	30
6	M. P. 1206.83 - 1207.01	30	30	25	20	30	25
6	M. P. 1207.01 - 1217.52	40	40	30	20	40	30
6	M. P. 1217.52 - 1218.78	30	30	25	20	30	25
6	M. P. 1218.78 - 1220.59	40	40	30	20	40	30
6	Globe yard	15	15	15	15	15	15
6	Globe, Broad Street Crossing	6	6	6	6	6	6
6	M. P. 1223.09 - 1231.18	30	30	30	20	30	30
6	Miami yard	15	15	15	15	15	15
6	Miami—Live Oak	15	15	15	15	15	15

SPEED TABLE

SPEED PER HOUR	1 MILE IN MIN. SEC.	SPEED PER HOUR	1 MILE IN MIN. SEC.	SPEED PER HOUR	1 MILE IN MIN. SEC.	SPEED PER HOUR	1 MILE IN MIN. SEC.
6	10.00	25	2.24	39	1.33	53	1.08
8	7.30	26	2.18	40	1.30	54	1.06
10	6.00	27	2.13	41	1.27	55	1.05
12	5.00	28	2.08	42	1.25	56	1.04
15	4.00	29	2.04	43	1.23	57	1.03
16	3.45	30	2.00	44	1.21	58	1.02
17	3.31	31	1.56	45	1.20	59	1.01
18	3.20	32	1.52	46	1.18	60	1.00
19	3.09	33	1.49	47	1.16	61	.59
20	3.00	34	1.45	48	1.15	62	.58
21	2.51	35	1.42	49	1.13	63	.57
22	2.43	36	1.40	50	1.12	64	.56
23	2.36	37	1.37	51	1.10	65	.55
24	2.30	38	1.34	52	1.09		

SPEED OF TRAINS REGULATED BY ORDINANCES THROUGH CITY LIMITS

PAGE	STATION	M. P. H.
2-3	Yuma street crossings	5
4-5-7	Tempe	20
4-5	Chandler	20
7	Casa Grande	25
8	Willcox	30
9	Nogales	20
10	Safford	15
10	Pima	15

Speed restrictions for engines are shown in speed restriction table; however, attention is called to the following maximum speeds at which tenders may be operated.

Tenders having water capacity 7,000 gallons or less, except Classes 70-R-1 and 70-SC-1, maximum speed 50 M.P.H.

Tenders having water capacity in excess of 7,000 gallons, and including Classes 70-R-1 and 70-SC-1, maximum speed of engines.

Maximum speed of disabled engines hauled in train, or running under own steam, must not exceed:

When pilot removed	20 M.P.H.
When main rod only removed	30 M.P.H.
When side rods only removed	30 M.P.H.
When both main and side rods removed	20 M.P.H.
When hauled in train and all rods are on	30 M.P.H.
SP1, 2 and 3 when inside main rod removed or inoperative	30 M.P.H.
S and SE engines, and all other classes of engines when not equipped with engine trucks	20 M.P.H.

When all weight has been removed from any one pair drivers on an engine, speed must not exceed 20 M.P.H.

When all weight has been removed from one wheel of any pair drivers on an engine, speed must not exceed 30 M.P.H.

Engines operated coupled tender to tender must not exceed speed permitted same engines running backwards.

Trains handling relief outfit must not exceed 25 M.P.H. main line or 20 M.P.H. on branch lines.

Speed of trains carrying locomotive crane with boom in place, must not exceed 25 M.P.H. on straight track, and 15 M.P.H. around curves and on branch lines. Locomotive cranes must be handled in trains with heavy end forward.

All cars handled in passenger trains must be equipped with steel-tired or all steel wheels.

Wooden passenger-carrying cars, wooden baggage, express and other head end cars, unless equipped with steel center sills and steel platforms must not be used in passenger trains.

Speed of trains handling such cars restricted as follows: When consist includes not more than three wooden passenger-carrying cars, maximum speed must not exceed 50 M.P.H. When consist includes more than three wooden passenger-carrying cars maximum speed must not exceed 40 M.P.H.

If consist of train includes both wooden and steel passenger-carrying cars, the wooden cars must be kept together and handled on rear.

LOCATION OF OVERHEAD AND SIDE STRUCTURES NOT STANDARD CLEARANCE

Employes are warned that it is dangerous to ride on top or sides of cars while passing these points and that they must protect themselves from injury.

Bulletins may be issued from time to time referring to impaired clearances not listed below.

MILE POST	DESCRIPTION	
9-10	Yuma Valley R.R. (Spillway Spur)	Left Side
733.0	Yuma, ice platforms	Side
755.2	Granite Spur, chute on crusher track not clear car higher than ballast car.	
778.0	Gila River bridge	Side
891.0	Agua Fria River bridge	Side
907.0	Phoenix, ice platform	Side
914.0	Salt River bridge	Side
914.4	Tempe, Tempe Milling Co. spur	Side
921.8	Mesa, Texas Oil Co., Drew's spur and ice platform	Side
959.3	Gila River bridge	Side
972.4	Tunnel No. 1 (Christmas Branch)	Overhead and Side
972.5	Gila River bridge (Christmas Branch)	Side
975.4	Rock cut (Christmas Branch)	Side
985.3	Gila River bridge (Christmas Branch)	Side
987.8	Ray Junction, water tank spout	Overhead and Side
988.5	Tunnel No. 2 (Christmas Branch)	Overhead and Side
990.0	Tunnel No. 3 (Christmas Branch)	Overhead and Side
1002.1	Hayden Smelter	Overhead and Side
1003.5	Winkelman, ore bins	Side
1007.0	Finney, ore chute	Side
1009.2	Tunnel No. 4 (Christmas Branch)	Overhead and Side
984.2	Tucson, ice platform	Side
1029.6	Tubac, water tank spout	Overhead and Side
1049.8	Nogales, ice platform	Side
1008.1	Cienega Creek bridge	Side
1033.6	San Pedro River bridge	Side
1114.2	San Simon, water tank spout	Overhead and Side
1137.5	Safford, water tank and spout	Overhead and Side
1201.0	San Carlos, water tank and spout	Overhead and Side
1234.1	Inspiration spur, chute	Side

SURGEONS

LOCATION		NAME	TITLE
San Francisco	Cal.	Dr. W. B. Coffey	Chief Surgeon and Manager
Yuma	Ariz.	Dr. J. W. Stacey	District Surgeon
Yuma	"	Dr. C. S. Powell	District Surgeon
Yuma	"	Dr. D. Marchus	Asst. District Surgeon
Litchfield	"	Dr. R. L. Penn	District Surgeon
Buckeye	"	Dr. G. C. Rubel	District Surgeon
Buckeye	"	Dr. V. Jeffery	Asst. District Surgeon
Phoenix	"	Dr. Guy C. French	District Surgeon
Phoenix	"	Dr. H. D. Ketcherside	Asst. District Surgeon
Phoenix	"	Dr. J. E. Drane	Asst. District Surgeon
Phoenix	"	Dr. A. M. Tuthill	Asst. District Surgeon
Phoenix	"	Dr. George M. Brockway	Consulting Surgeon
Phoenix	"	Dr. D. F. Harbridge	Oculist
Phoenix	"	Dr. W. A. Schwartz	Aurist
Tempe	"	Dr. R. J. Stroud	District Surgeon
Mesa	"	Dr. R. F. Palmer	District Surgeon
Mesa	"	Dr. W. S. Sharp	District Surgeon
Chandler	"	Dr. J. M. Meason	District Surgeon
Chandler	"	Dr. C. L. Pohle	Associate District Surgeon
Coolidge	"	Dr. H. E. Pinkerton	Emergency Surgeon
Gilbert	"	Dr. L. M. Thompkins	Emergency Surgeon
Florence	"	Dr. G. E. Huffman	District Surgeon
Ray	"	Dr. O. E. Utzinger	District Surgeon
Hayden	"	Dr. C. B. Huestis	District Surgeon
Gila	"	Dr. G. C. Shirey	District Surgeon
Casa Grande	"	Dr. J. E. Redden	District Surgeon
Tucson	"	Dr. C. A. Thomas	Assistant to Chief Surgeon
Tucson	"	Dr. S. C. Davis	Division Surgeon
Tucson	"	Dr. V. G. Presson	Assistant Surgeon
Tucson	"	Dr. R. A. Wilson	Assistant Surgeon
Tucson	"	Dr. R. E. Hastings	Assistant Surgeon
Tucson	"	Dr. F. C. Shute	Assistant Surgeon
Tucson	"	Dr. W. G. Ure	Assistant Surgeon
Tucson	"	Dr. E. H. Brown	Aurist and Oculist
Tucson	"	Dr. T. H. Cates	Consulting Aurist and Oculist
Nogales	"	Dr. W. F. Chenoweth	District Surgeon
Benson	"	Dr. J. N. Morrison	District Surgeon
Benson	"	Dr. L. W. Moffitt	District Surgeon
Willcox	"	Dr. J. C. Wilson	District Surgeon
Willcox	"	Dr. B. E. Briscoe	District Surgeon
Bowie	"	Dr. F. W. Parrish	District Surgeon
Lordsburg	N. M.	Dr. C. B. Austin	District Surgeon
Lordsburg	"	Dr. E. M. Parham	Asst. District Surgeon
Safford	Ariz.	Dr. J. N. Stratton	District Surgeon
San Carlos	"	Dr. D. C. Lynwalter	District Surgeon
Globe	"	Dr. C. Gunter	District Surgeon
Globe	"	Dr. R. D. Kennedy	District Surgeon
Globe	"	Dr. W. A. Holt	Consulting Surgeon
Miami	"	Dr. C. M. Cron	District Surgeon
Miami	"	Dr. J. E. Bacon	District Surgeon

HOSPITALS

General Hospital, Southern Pacific Hospital.......San Francisco, Calif.

Division Hospitals {St. Joseph's Hospital..................Phoenix, Ariz.
{St. Mary's Hospital......................Tucson, Ariz.

LOCATION HOSPITAL STRETCHERS

Yuma, Gila, Maricopa, Phoenix, Tempe, Ray Junction, Tucson, Benson, Bowie, Lordsburg, Globe.

AVERAGE TARE WEIGHTS OF PASSENGER TRAIN CARS

CLASS	NOT AIR-CONDITIONED		AIR-CONDITIONED	
	All-Steel	Steel Under-frame	All-Steel Cooling Season	All-Steel Heating Season
Baggage—60 ft.	93,070			
" —66 ft.	127,610			
" —70 ft.	122,620			
" —70 ft. (With Auto. End Door)	125,800			
" —(Dynamo)	98,730			
"		87,120		
Baggage & Mail—60 ft.	103,620			
" " " —69 ft.	124,760			
" " " —70 ft.	129,140			
" " "		103,590		
" " Passenger	108,675	112,640		
Express Refr.—N. P. Ry.		74,000		
" " —A. R. E. No. 40- 154		78,000		
" " — " " 155- 224		89,000		
" " — " " 500- 506		110,000		
" " — " " 1101-1175		85,000		
" " —P. F. E. " 500- 799		83,000		
Express, Horse	133,050			
Postal	112,120			
Postal Storage—40 ft.	74,530			
" " —60 ft.	105,120			
Assembly (ACW)			168,950	168,950
Club (ACI)	146,210	122,300	172,200	164,700
Official (NAC)	170.700	155,370		
" (ACW) Cars 107-128			182,800	182,800
" (ACW) " 140-141			195,040	195,040
Chair—60 ft. (ACI)	100,620		138,000	132,000
" —72 ft. (ACI)			165,000	157,800
" —72 ft. (ACW)			158,700	158,700
" —Streamline—Single (ACS)			120,900	104,500
" — " —Art. (ACS)			205,400	172,600
" —74 ft. (ACI)			180,915	173,125
" —74 ft. (ACS)			197,944	181,600
Coaches—60 ft. (ACI)	98,130		136,100	130,100
" —70 ft. (ACI)	137,640		157,800	151,000
" —70 ft. (ACW)	137,640		151,000	151,000
" —72 ft. (ACI)			164,500	157,400
" —72 ft. (ACW)			153,500	153,500
" —73 ft. 6 in. (ACW)			163,000	163,000
" —73 ft. 6 in. (ACI)			168,500	161,200
" —72 ft. (Interurban)	120,000			
All-Day Lunch—Chair	105,970			
" " —Coach	103,875			
Cafe-Coach (ACI)		138,600	155,700	149,000#
Cafe-Lounge (ACI)	148,950	161,200	173,500	166,000
" (ACW)			156,000	156,000
Diner—70 ft.		135,930		
" —72 ft.	155,330	146,930		
" —77 ft. (Arch Roof) (ACI)	156,000		170,100	162,700
" —77 ft. (" ") (ACW)			162,950	162.950
" —77 ft. (Clere Story Roof) (ACW)		165,530	169,450	169,450
" —77 ft. (" " ") (ACM)			189,581	173,836
" —79 ft. (NAC)	169,100			
" —80 ft. (Clere Story Roof) (ACM)			201,323	184,700
Lounge (" " ") (ACI)			189,800	181,630
" (Arch Roof) (ACI)			167,500	160,300
" (" ") (ACW)			164,980	157,780
Observation—75 ft. (ACI)	154,400		169,185	161,990
" —77 ft. (ACI)			194,543	186,166
"		141,870		
Pullman-Observation (ACI)	160,800	153,000	177,314	169,200
" " (ACM)	160,800	153,000	192,300	176,300
" " Lounge (ACM)	171,200		194,900	178,900
" " " (ACI)	171,200		187,682	179,600
" —Bedroom (ACI)	167,600		183,920	176,000
" — " (ACM)	167,600		195,800	179,800
" —Sleeper (ACM)	163,100		191,100	175,100
" — " (ACI)	163,100		180,075	171,500
" —Tourist (ACM)	153,000		185,200	169,200
" — " (ACI)	153,000		168,663	161,400
Rail, Gas-Electric—400 H.P.	158,400			
" " " —600 H.P.	167,200			

#Steel underframe.

CODE:

NAC—Non-Air Conditioned.
ACI —Air-Conditioned—Ice.
ACM—Air-Conditioned—Mechanical.
ACW—Air-Conditioned—Waukesha.
ACS —Air-Conditioned—Steam Ejector.

RATING OF LOCOMOTIVES—TUCSON DIVISION

IN Ms OF 1,000 LBS. BACK OF TENDER

Nominal Class	OFFICIAL CLASS	ENGINE NUMBERS	Boiler Pressure	Yuma to Tucson Via Gila	Tucson to Yuma Via Gila	Yuma to Tucson Via Phoenix	Tucson to Yuma Via Phoenix	Tucson to Nogales	Nogales to Tucson	McQueen to Christmas	Christmas to McQueen
				*Helper	Single	Single	Single	Single	Single	Single	Single
M- 4 M- 4 M- 4	M-63 20/28 126 M-63 20/28 128-S M-63 20/28 135-S	1617 to 1713	190	3050	2900	3050	2900			3150	3750
M- 6 M- 6	M-63 21/28 159-SF M-63 21/28 150-S	1725 to 1769 1780 to 1803 1823 to 1825	200	3750	3600	3750	3600				
M- 9	M-63 21/28 150-S	1806 to 1822 1828 to 1830	210	3950	3800	3950	3800			4100	4900
M-11 M-11	M-63 22/28 153-S M-63 22/28 162-SF	1832 to 1835	200	4150	3950	4150	3950			4250	5100
T-37	T-70 24/28 146-S	2105, 2106	175	3800	3700	3800	3700				
P-1, 3, 5	P-77 22/28 141-S	2400 to 2452, 2459, 2460	210	3400	3300	3400	3300				
C- 8 C-9, 10 C-9, 10	C-57 22/30 192-S C-57 22/30 200-SF C-57 22/30 194-S	2513 to 2599, 2698 to 2860	210	4800	4600	4800	4600	3000	4100	4700	5600
TW- 3	TW-50 20/26 120	2932 to 2945	170	3050	2900	3050	2900	2050	2600		
P-12	P-73 26/28 189-S-F	3120 to 3129	205	5000	4750	5000	4750				
Mk-2, 4 Mk-2, 4	Mk-57 23½/30 206-S Mk-57 23½/30 230-SF	3200 to 3240	210	5600	5400	5600	5400			5650	6750
Mk-5, 6 Mk-5, 6	Mk-63 26/28 210-S Mk-63 26/28 231-SF	3241 to 3277	210	6000	5750	6000	5750			6100	7300
Mk-7, 8, 9 Mk-7, 8, 9	Mk-63 29/30 247-S Mk-63 29/30 257-SF	3300 to 3324	176	5700	6350	5700	6350				
F- 1	F-63 27½/32 273-S	3600 to 3652	200	5900	6700	5900	6700				
F- 3	F-63 29½/32 307-S	3653 to 3667	200	6300	7100	6300	7100				
F-4, 5 F- 5	F-63 29½/32 306/B-61-SF F-63 29½/32 306/B-62-SF	3668 to 3763, 3769 3764 to 3768	200	6600	8000	6600	8000				
Mt-1,3,4,5	Mt-73 28/30 246/B-60-SF	4300 to 4376	210	5700	6400	5700	6400				
Mt-2	Mt-73 29/30-262-SF	4385 to 4390	210	5850	6600	5850	6600				
SP-1 SP-2, 3	SP-63 $\frac{25}{28-32}$ 316/B-60-SF SP-63 $\frac{25}{28-32}$ 317/B-61-SF	5000 to 5048	225	8000	8000	8000	8000				
Allowance for empty and underloaded cars		Less than 40 Ms. 40 Ms. to 50 Ms. More than 50 Ms.		6 3 0	6 3 0	6 3 0	6 3 0	6 3 0	6 3 0	6 3 0	6 3 0
					Double Kim to Mohawk	Double Saddle to Harqua					

*Helper 0.5 Yuma to East Yard; Helper 1.0 Except Helper C-8,9,10 with Classes Mk-7,8,9; F-1,3,4,5; Mt-1,2,3,4,5 SP-1,2,3 Pembroke to Mohawk, Lava to Sentinel, Gila to Estrella

DIVISION MILEAGE

Main Lines

Yuma to Lordsburg	S. P. R. R.			412.60	
Tucson to South Yard Junction	E. P. & S. W. R. R.			7.69	
Wellton to Picacho via Phoenix	A. E. R. R.		195.91		
	P. & E. R. R.		13.10	209.01	
Total Main Lines					629.30

Branches

Benson-Fairbank	S. P. R. R.	Benson Jct., Benson-Fairbank Branch to Benson, Initial Point E. P. & S. W. R. R.		.64	
Christmas	P. & E. R. R.	McQueen to Christmas	74.41		
	A. E. R. R.	McQueen to Christmas	12.26		
	R. & G. V. R. R.	Hayden Jct. to Hayden	.32	86.99	
Florence	A. E. R. R.	Florence Jct. to Poston		6.04	
Globe	A. E. R. R.	Bowie to Inspiration Jct.		136.14	
Litchfield	A. E. R. R.	Litchfield to Litchfield Park		4.92	
Tempe	A. E. R. R.	West Chandler to Tempe Jct.		8.73	
Creamery	A. E. R. R.	At Tempe	.47		
	P. & E. R. R.	Tempe to Normal Jct.	1.74	2.21	
Mesa	P. & E. R. R.	At Mesa	.25		
	A. E. R. R.	Mesa to North Mesa	1.65	1.90	
Nogales	S. P. R. R.	At Tucson	.63		
	T. & N. R. R.	T. & N. R. R. Jct. to Calabasas	55.38		
	N. M. & A. R. R.	Calabasas to Nogales	9.78	65.79	
Total Branches					313.36
Total					942.66

RATING OF LOCOMOTIVES—TUCSON DIVISION—Continued

IN Ms OF 1,000 LBS. BACK OF TENDER

				EASTWARD				WESTWARD					EASTWARD					WESTWARD				
Nominal Class	OFFICIAL CLASS	ENGINE NUMBERS	Boiler Pressure	Tucson-Mescal	Benson-Dragoon San Simon Steins	Mescal-Benson Dragoon-Willcox Raso-San Simon Steins-Conrad Pyra-Lordsburg	Willcox-Raso Conrad-Pyra	Lordsburg-Pyra	Pyra-Mondel Steins-San Simon Raso-2 M. E. Cochise Dragoon-Benson Mescal-Tucson	San Simon Bowie	Bowie-Raso 2 M. E. Cochise-Dragoon	Mondel-Steins Benson-Mescal	Bowie-San Carlos	San Carlos Cutter	Cutter-Pinal	Pinal-Globe	Globe-Miami	Miami-Globe	Globe-Pinal	Pinal-San Carlos	San Carlos Tanque	Tanque-Bowie
				Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single
M-6	M-63 21/28 150-S	1725 to 1769	200	1950	1500	6000	2900	3250	6000	3650	2250	1500										
M-6	M-63 21/28 159-SF	1780 to 1803																				
		1823 to 1825																				
T-37	T-70 24/28 146-S	2105, 2106	175	2000	1550	6000	3000	3350	6000	3750	2300	1550	3700	2250	950	6000	1500	1050	950	6000	3150	2400
C-8	C-57 22/30 192-S	2513 to 2599	210	2500	1950	8000	3750	4150	8000	4650	2900	1950	4900	3000	1310	8000	2000	1400	1310	8000	4170	3220
C-9, 10	C-57 22/30 200-SF	2698 to 2860																				
C-9, 10	C-57 22/30 194-S																					
TW- 3	TW-50 20/26 120	2932 to 2945	170	1600	1250	6000	2400	2650	6000	2950	1850	1250	3200	1950	850	7000	1300	900	850	7000	2700	2100
P-12	P-73 26/28 189-SF	3120 to 3129	205	2600	2000	8000	3900	4350	8000	4900	3000	2000	4850	2980	1300	8000	1980	1390	1300	8000	4100	3200
Mk-2, 4	Mk-57 23½/30 206-S	3200 to 3240	210	2800	2200	8000	4250	4750	8000	5300	3250	2200										
Mk-2, 4	Mk-57 23½/30 230-SF																					
Mk-5, 6	Mk-63 26/28 210-S	3241 to 3277	210	3150	2450	8000	4700	5250	8000	5850	3650	2450										
Mk-5, 6	Mk-63 26/28 231-SF																					
Mk-7, 8, 9	Mk-63 29/30 247-S	3300 to 3324	176	3500	2750	8000	5200	5800	8000	6500	4000	2750										
Mk-7, 8, 9	Mk-63 29/30 257-SF																					
F-1	F-63 27½/32 273-S	3600 to 3652	200	3700	2900	10000	5500	6100	10000	6850	4250	2900										
F-3	F-63 29½/32 307-S	3653 to 3667	200	4200	3300	10000	6300	7000	10000	7800	4850	3300										
F-4, 5	F-63 29½/32 306/B-61SF	3668 to 3763, 3769	200	4750	3750	10000	7100	7850	10000	8800	5450	3750										
F-5	F-63 29½/32 306/B-62-SF	3764 to 3768																				
Mt-1, 3, 4, 5	Mt-73 28/30 246/B-60-SF	4300 to 4376	210	3800	2950	10000	5650	6300	10000	7050	4350	2950										
Mt-2	Mt-73 29/30 262-SF	4385 to 4390	210	3550	2800	10000	5350	5950	10000	6700	4100	2800										
SP-1	SP-63 $\frac{25}{28-32}$ 316/B-60-SF	5000 to 5048	225	5350	4350	10000	8000	8850	10000	10000	6150	4350										
SP-2, 3	SP-63 $\frac{25}{28-32}$ 317/B-61-SF																					
	Allowance for empty and underloaded cars	Less than 40 M's		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
		40 M's to 50 M's		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
		More than 50 M's		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

These ratings include the total weight of train, exclusive of engine and tender, which the different class of locomotives will haul in each direction between the stations shown.

CLASS "C"—Consolidation
"T"—Ten-wheelers
"M"—Moguls
"TW"—Twelve-wheelers
"Mk"—Mikado
"P"—Pacific
"F"—2-10-2
"MT"—Mountain
"SP"—Southern Pacific

Example:—Consolidation engine having 57-inch drivers, cylinders 22-inch diameter and 30-inch stroke, and weighing 187,000 pounds on drivers.

C-57 $\frac{22}{30}$ 187

ASSISTANT SUPERINTENDENT

G. A. BAYS

TRAINMASTERS

W. C. PRYOR	Yuma
F. W. CANTRELL	Phoenix
J. J. COWIN	Tucson

CHIEF TRAIN DISPATCHER

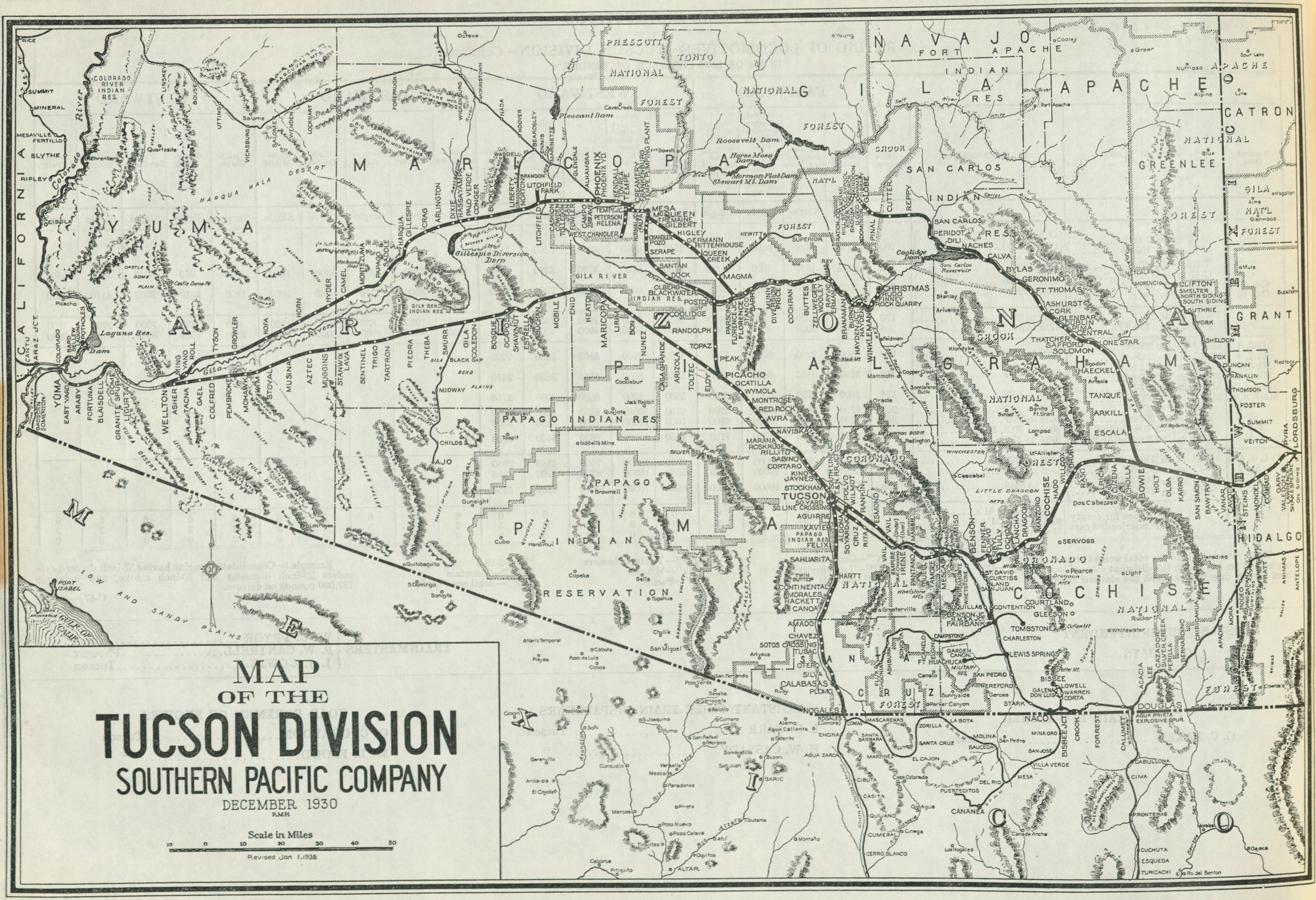
G. C. BAKER .... Tucson

ASSISTANT CHIEF TRAIN DISPATCHERS

L. D. BARR	Tucson
H. W. CASSADY	"

ROAD FOREMEN OF ENGINES

G. C. GRAYDON	Tucson
M. L. FLOOD	"


NAVAJO
FORT APACHE INDIAN RES
APACHE
CATRON
GREENLEE
GRANT
HIDALGO
MARICOPA
YUMA
ARIZONA
PINAL
GILA
GRAHAM
PIMA
COCHISE
SANTA CRUZ
PAPAGO INDIAN RES
PAPAGO INDIAN RESERVATION
SAN CARLOS INDIAN RES
GILA RIVER INDIAN RES.
COLORADO RIVER INDIAN RES.
TONTO NATIONAL FOREST
PRESCOTT NATIONAL FOREST
CROOK NAT'L FOREST
CROOK NATIONAL FOREST
CORONADO NATIONAL FOREST
GILA NAT'L FOREST
CALIFORNIA
NEW MEXICO
MEXICO
GULF OF CALIF.
PORT ISABEL
LOW AND SANDY PLAINS
HARQUA HALA DESERT
Roosevelt Dam
Horse Mesa Dam
Mormon Flat Dam
Stewart Mt. Dam
Pleasant Dam
Coolidge Dam
San Carlos Reservoir
Gillespie Diversion Dam
Laguna Res.
PHOENIX
PHOENIX YD.
TEMPE
MESA
McQUEEN
CHANDLER
GILBERT
HIGLEY
QUEEN CREEK
MAGMA
SUPERIOR
FLORENCE
COOLIDGE
PICACHO
RED ROCK
MARANA
TUCSON
TUCSON SO. YARD
SAHUARITA
AMADO
TUBAC
CALABASAS
NOGALES
NOGALES (Sonora)
BENSON
FAIRBANK
TOMBSTONE
CONTENTION
FT. HUACHUCA
LEWIS SPRINGS
HEREFORD
BISBEE
NACO
DOUGLAS
AGUA PRIETA
BOWIE
WILLCOX
COCHISE
DRAGOON
SAN SIMON
LORDSBURG
CLIFTON
DUNCAN
SAFFORD
THATCHER
GLOBE
MIAMI
HAYDEN
WINKELMAN
CHRISTMAS
SAN CARLOS
GERONIMO
CALVA
BYLAS
GILA BEND
YUMA
WELLTON
MOHAWK
SENTINEL
AJO
CHILDS
MARICOPA
CASA GRANDE
ELOY
PARKER
BLYTHE
EHRENBERG
SALOME
WICKENBURG
BUCKEYE
LITCHFIELD PARK
GLENDALE
CANANEA
CABULLONA
FRONTERAS
Scale in Miles
10 0 10 20 30 40 50

MAP OF THE TUCSON DIVISION

SOUTHERN PACIFIC COMPANY

DECEMBER 1930

R.M.H.

Revised Jan 1, 1938